Interoperability Montana

Statewide Communications Interoperability Plan

2007

OFFICE OF THE GOVERNOR
STATE OF MONTANA

BRIAN SCHWEITZER
GOVERNOR

JOHN BOHLINGER
LT. GOVERNOR

November 26, 2007

Mr. Michael Roskind, Acting Director
Office of Emergency Communications
U.S Dept. of Homeland Security
1110 North Glebe – Ninth Floor
Arlington, VA 22201

Dear Acting Director Roskind:

It gives me great pleasure to commend the leadership of the Interoperability Montana (IM) Project for developing a comprehensive Statewide Communications Interoperability Plan (SCIP).

Montana is reaching its communications interoperability goals via a unique governance approach. All 56 Montana counties and 7 tribal nations in the state are represented in regional consortia that are working to advance local, state, tribal and federal public safety communications needs. The design outlined in the SCIP reflects Montana's grassroots, bottom-up approach.

You may be interested in knowing that for the 2007-2008 biennium, the State of Montana Legislature approved $8.5 million to support the IM Project. And, the legislature gave the IM Project Directors the utmost authority and flexibility to manage this budget. The State of Montana is committed to seeing the IM Project become a success to meet the growing needs of first responders across the state. And, we look forward to continuing the partnerships already established to further the vision of establishing a connected, voice and data public safety communications system throughout the state.

I applaud the commitment and hard work by those involved with the IM Project and those who wrote this plan. Please let me know if the State of Montana can assist in helping to meet state and national interoperability goals.

Sincerely,

BRIAN SCHWEITZER
Governor

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STATE OF MONTANA
Department of Administration
INFORMATION TECHNOLOGY SERVICES DIVISION

Brian Schweitzer
Governor

November 26, 2007

Mr. Michael Roskind, Acting Director
Office of Emergency Communications
U.S Dept. of Homeland Security
1110 North Glebe – Ninth Floor
Arlington, VA 22201

Dear Acting Director Roskind:

It is with great pleasure that I give my support to Montana's Statewide Communications Interoperability Plan (SCIP). The State of Montana, through the Department of Administration, Information Technology Services Division, is committed to seeing the Interoperability Montana (IM) Project continue to make great strides in improving public safety radio and mobile data communications in Montana.

Montana and the nation are challenged to prepare for the impacts of a dramatically changing communications environment. Through the IM Project, advanced communications technologies are being implemented so that Montana is not only preparing for the future, but also making significant improvements to meet Montana's four-fold mission for public safety communications:

1. Local, such as a local ambulance responding to an emergency;
2. State, such as dealing with wild fires;
3. National, such as drug interdiction; and
4. International, such as issues with the Canadian border and illegal immigration.

The IM Project is taking a leadership role with regard to planning for public safety communications systems used by local, state, tribal and federal entities in Montana. Implementing standards and interoperable systems are objectives that are being met, as well as integrating radio, 9-1-1, and GIS technologies for improved emergency response for the public.

To that end, the State, through the collaborative efforts of the IM consortia, Tribal Governments, State and Federal agencies has undertaken coordinated projects to deploy integrated solutions to improve public safety in Montana. The State of Montana looks forward to continuing partnerships to expand the vision of establishing a connected, voice and data public safety communications system throughout the state. This vision is reflected in the blueprint outlined in the SCIP.

Enhanced interoperable communications is a key priority for the State of Montana, and we eagerly look forward to continued cooperation and participation to make this priority become a reality.

Sincerely,

Dick Clark, CIO, ITSD
Dept. of Administration
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Sheriff Cheryl A. Liedle
221 Breckenridge • Helena, Montana 59601-4230

November 26, 2007

Mr. Michael Roskind, Acting Director
Office of Emergency Communications
U.S Dept. of Homeland Security
1110 North Glebe – Ninth Floor
Arlington, VA 22201

Dear Acting Director Roskind:

I am pleased to endorse Montana's Statewide Communications Interoperability Plan (SCIP). The Interoperability Montana (IM) Project is made up of eight regional consortia and the Mobile Data Terminal (MDT) consortium, which collectively represent all 56 Montana counties and 7 tribal nations in the state. Project directors of these consortia—along with three State of Montana agencies—make up the Interoperability Montana Project Directors (IMPD) board, which I chair.

We are particularly proud of the accomplishment of the IM Project to date, and believe that the SCIP provides an accurate description of how the state's interoperable public safety communications needs are being addressed through federal partnerships, local and tribal collaboration, and state support. Unlike most states, Montana's system is being directed by its users: public safety first responders. This grassroots approach accounts for much of Montana's success.

Thank you for your agency's continued leadership and commitment to public safety and to the goal of interoperability. Please contact me in the event you need any additional information.

Sincerely,

Sheriff Cheryl Liedle
Lewis and Clark County

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Executive Summary

As in many states, communications interoperability between local, state, tribal and federal response communities is a crucial issue. Montana has many challenges to communications interoperability. Some of these challenges relate to simple 'operability' issues, such as the fact that much of Montana's wireless communication infrastructure is between 10 and 30 years old and is based on wide-band, analog technology that is often unreliable and has high maintenance costs. Montana is the nation's fourth largest state and is characterized by large amounts of rural areas and challenging topography, resulting in inadequate radio coverage to ensure responder and public safety. In addition, Montana shares a 550-mile border with Canada, which creates unique law enforcement and public safety agency coordination challenges.

End user units are also aging and have inadequate capability, thus limiting interoperability. Most agencies operate in the VHF band in a conventional mode, relying on simplex mutual aid frequencies for interagency cooperation. Several State of Montana and Federal agencies have parallel statewide systems without standard interoperability. Coordination with Canada is also challenging for spectrum management.

Montana is addressing these challenges with the policy-level Statewide Interoperability Executive Council (SIEC) and a locally-led, operational governing board known as the Interoperability Montana Project Directors (IMPD). The SIEC, formed in July, 2002 and comprised of local, state, federal, and other public service agency representatives, provides policy-level direction in matters related to planning, designing and implementing guidelines, best practices and standard approaches to solve Montana's public safety communications interoperability problems. In August 2005, the SIEC adopted a formal definition of interoperability as well as the technical requirements necessary to meet Project 25 Standards (P25) for the state.

The IMPD is a grassroots partnership of local, tribal, and state government agencies and has the primary responsibility for development and execution of the strategy to implement Interoperability Montana (IM) as defined by the SIEC. Nine consortia in the state represent all 56 counties and 7 Tribal Nations. In addition to the nine consortia project directors, three state agencies have voting positions on the IMPD, representing the Montana Department of Natural Resources and Conservation (DNRC), the Montana Department of Transportation (MDoT) and the Montana Highway Patrol (MHP). Consortia directors represent their local or agency communications needs, yet they are working collaboratively to build a shared system that will improve the safety of residents and first responders. The IMPD has formed sub-committees to define a structure to address short- and long-term maintenance and governance of the IM system as well as to design and implement infrastructure and technical solutions.

With over 1400 users having already converted to a P25 trunked/hybrid configuration, Montana is well on its way to improving the reliability of radio transmission sites, developing trunked radio coverage for use by partners, developing a digital microwave system to connect sites, and providing backbone infrastructure to allow for the future expansion of technologies such as mobile data, remote sensing and data transmission for public entities. The success of this project will open up numerous voice and data opportunities for public safety jurisdictions across the state. No person shall lose his/her life because public safety officials can not communicate.

1. Introduction and Background

1.1 Overview and background information on the state and its regions.

The State of Montana is comprised of 145,552 square miles making it the fourth largest state in the country. With a population of 944,632, it ranks as the 44th lowest in the nation. It has more than 550 miles of border with three provinces of Canada (Alberta, British Columbia, and Saskatchewan) which includes 14 border crossings and ports of entry. The state receives more than eight million visitors annually to parks and its blue ribbon fishing rivers. There are 1,225 miles of major interstate arteries, 2 national parks, 200 nuclear missile sites, 1 Level 4 biological facility, and 14 Superfund sites. Politically, the state is made up of 7 Indian Nations, 56 counties and 129 municipalities. Only seven cities have a population over 10,000: Billings, Bozeman, Butte-Silver Bow, Great Falls, Helena, Kalispell and Missoula. Seventy-three municipalities have fewer than 1,000 residents; 47 municipalities have fewer than 500 residents; and five municipalities have fewer than 100 residents. The responder community in Montana consists of 3,400 police; 7,000 EMS personnel; and 8,000 firefighters, park rangers and visiting responders that include federal and regional fire teams, the National Guard and federal law enforcement (FBI, BLM, HLS).

Metro and Non-Metro Counties in Montana

Based on the most recent listing of core based statistical areas by the Office of Management and Budget (December 2005), four counties in Montana are part of metropolitan statistical areas, and six counties are part of "micropolitan" areas, a term that includes urban areas with populations between 10,000 and 49,999 plus surrounding counties that are linked through commuting ties. These areas often represent important economic and trade centers in rural areas. These counties previously were included in the non-metropolitan category. The remaining 46 counties in Montana are considered non-core counties. Using these classifications and the population estimates for 2005, 34.9 percent of Montana residents live in metropolitan areas, 30.0 percent live in micropolitan areas, and 35.2 percent live in non-core areas.

Figure 1: Metro and Non-Metro Counties in Montana.

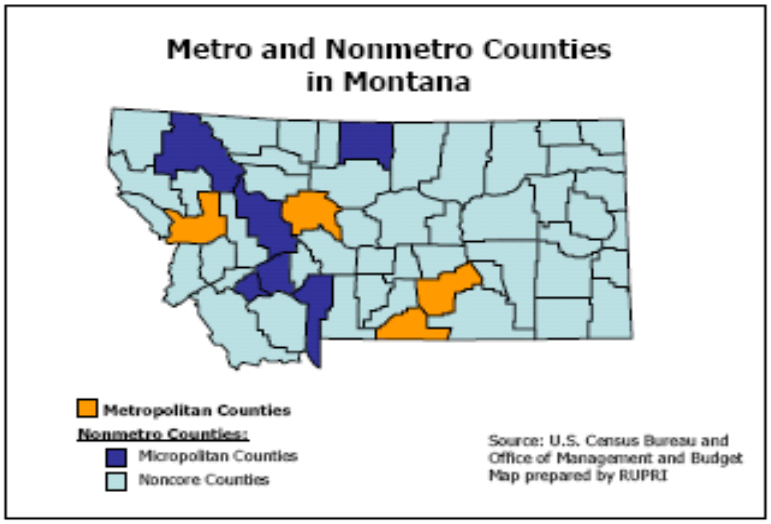
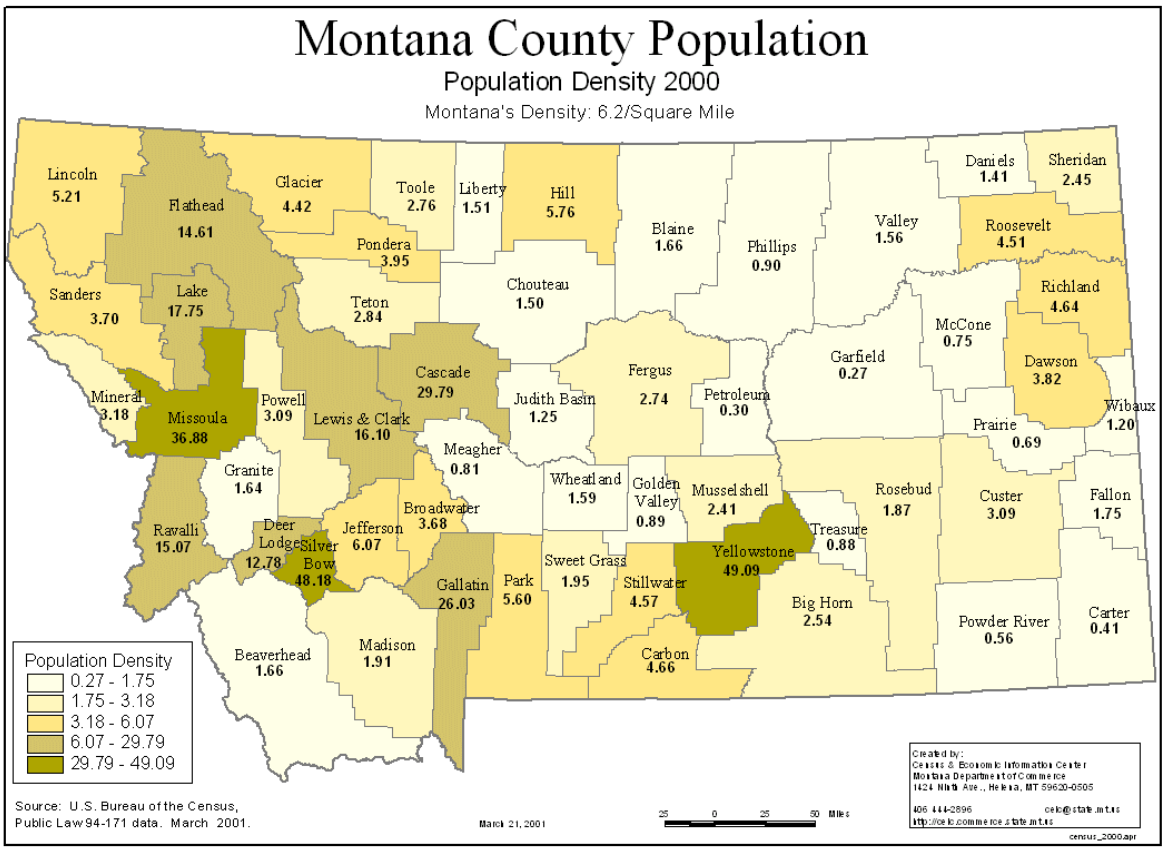


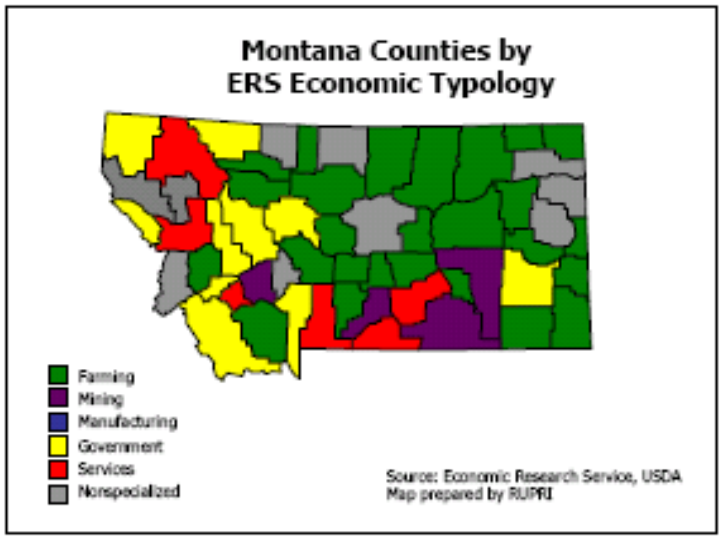
Figure 2: Montana County Population



Agriculture

Agriculture is an important industry in many parts of the state. Twenty-six counties are classified by the Economic Research Service as “farming dependent”.

Figure 3: Montana Counties by ERS Economic Typology



Geography

Geographically the state is located in the 4th most active seismic region of the country. The Rocky Mountain Region is always in danger of earthquakes due to faults that run through the area. Naturally occurring threats to the state include not only earthquakes, but also forest fires, droughts and floods. Montana can be divided into two geographic areas in general. The eastern three-fifths of Montana is covered by the Great Plains and the western two-fifths is part of the Rocky Mountain Region.

The Great Plains of Montana is part of the Interior Plain of North America that stretches from Canada south to Mexico. The Great Plains are made of high, gently rolling land interrupted by hills and wide river valleys, including the Yellowstone and Missouri Rivers. Groups of mountains spring up from these plains: the Bear Paws, Big Snowy, Judith, and Little Rocky Mountains. In the southeast, badlands created by wind and water erosion, have resulted in stunning geological forms.

The Rocky Mountain Region of Montana is covered by flat, grassy valleys and mountains covered in fir, spruce, pine and other evergreens. The southwest valleys are between 30 to 40 miles wide, while northern valleys are narrower: between 1 to 5 miles wide. Many of the mountains are covered with snow for 8 to 10 months of the year, and a few active glaciers are located in the higher altitudes. Montana's Rocky Mountains are known for their clear, cold lakes. More than 50 mountain ranges are in this region, including the Absaroka, Beartooth, Beaverhead, Big Belt, Bitterroot, Bridger, Cabinet, Crazy, Flathead, Gallatin, Little Belt, Madison, Mission, Swan, and Tobacco Root ranges. Granite Peak, the highest point in Montana, rises 12,799 feet above sea level in south-central Montana.

The Continental Divide runs through the Rocky Mountain Region. Montana is the only state that has rivers that drain into the Gulf of Mexico (Missouri River system), Hudson Bay (Belly's, St. Mary's, and Waterton Rivers) and the Pacific Ocean (Columbia River system).

1.2 Agencies and organizations that participated in developing the plan.

Consortium Development

In concert with national homeland security priorities, interoperable communications is Montana's second highest state homeland security priority next to information gathering. To many local and state responders, interoperable communications is the highest priority. In 2004, the Department of Administration (DOA), Information Technology Services Division (ITSD), Public Safety Service Bureau (PSSB), along with the Montana Disaster and Emergency Services (DES), initiated a process to facilitate the vision and development of interoperability to be fostered and led on the local level. Local representation from the county and tribal level came together, forming into eight Interoperable Voice Consortia, representing 56 counties and 7 Tribal Nations. In addition, a ninth consortium (Mobile Data Terminal Consortium) was created to facilitate the development of an interoperable mobile data system in cooperation with two State of Montana agencies, the Montana Highway Patrol and the Montana Department of Transportation. Consortium members routinely meet on a monthly basis. Each consortium board of directors is made up of county commissioners; chief elected and appointed law enforcement officials, fire services and other key elected and appointed city and county officials.

In 2005, directors from the eight voice and one mobile data consortia came together to form the Interoperability Montana Project Directors Board (IMPD). The IMPD, along with its designated Technical Committee, provides direction and priority for development of the connected, statewide system. At this level, and to a lesser degree the consortia level, state and federal partners participate with planning and implementation steps.

This grassroots organizational structure has resulted in positive outcomes in the organization and implementation of interoperable communications in Montana, with the vision of having a fully functional statewide system with active local, state, tribal and federal users. Great progress has been seen, primarily due to the leadership from the local level. To make sure Montana is effective in implementing wireless interoperability systems and procedures, it is developing workable solutions based on the achievements and "lessons learned" to date.

Figure 4: Map of Planning Regions

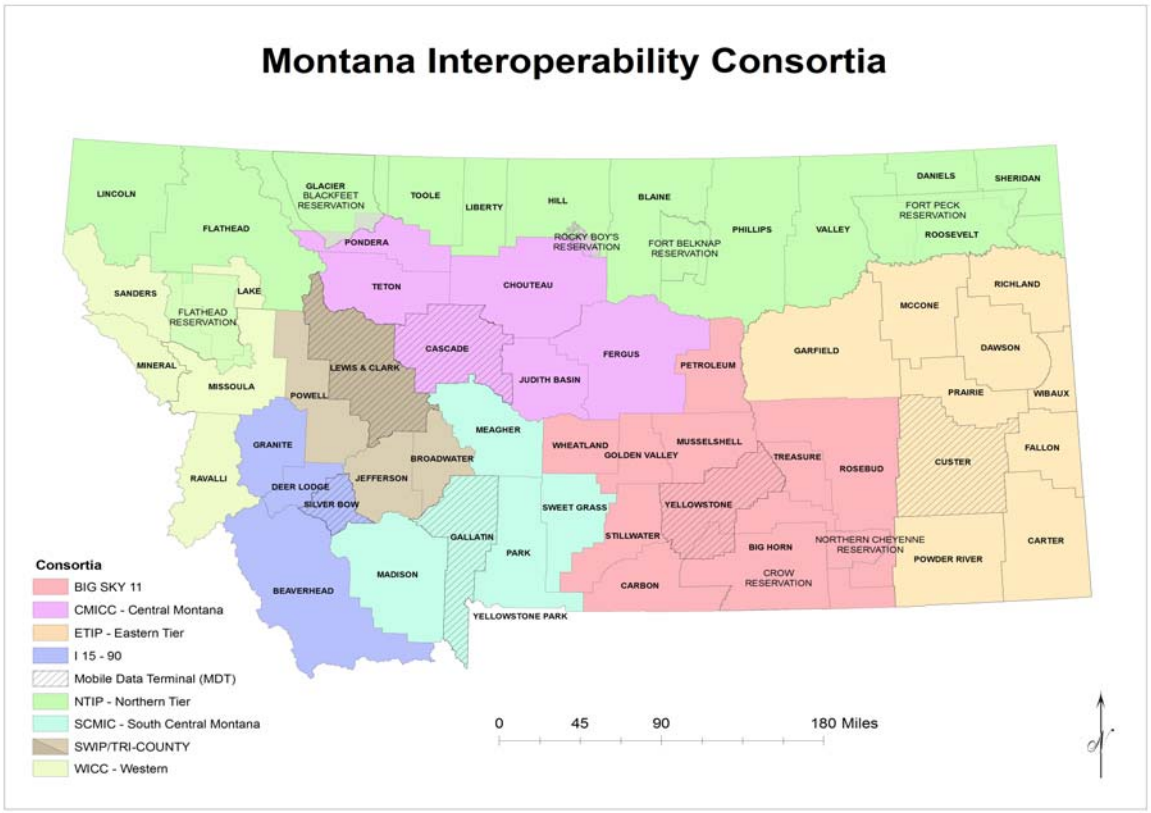


Table 1 on the following page provides a list of the regions within the state and lists the jurisdictions included in each region:

Table 1: Montana Regions and Their Jurisdictions

Big Sky 11	*Central Montana*	*Eastern Tier*	*I-15-90 Corridor*
• Big Horn County • Carbon County • Crow Reservation • Golden Valley County • Musselshell County • Northern Cheyenne Reservation • Petroleum County • Rosebud County • Stillwater County • Treasure County • Wheatland County • Yellowstone County	• Cascade County • Chouteau County • Fergus County • Judith Basin County • Pondera County • Teton County • Rocky Boys Reservation	• Carter County • Custer County • Dawson County • Fallon County • Garfield County • McCone County • Powder River County • Prairie County • Richland County • Wibaux County	• Anaconda/Deer Lodge County • Beaverhead County • Butte/Silver Bow County • Granite County

Northern Tier	South Central	*Tri-County/South Western*	*Western*
• Blaine County • Blackfeet Reservation • Daniels County • Flathead County • Flathead Reservation • Fort Belknap Reservation • Fort Peck Reservation • Glacier County • Hill County • Liberty County • Lincoln County • Phillips County • Roosevelt County • Sheridan County • Toole County • Valley County	• Gallatin County • Madison County • Meagher County • Park County • Sweet Grass County	• Broadwater County • Jefferson County • Lewis & Clark County • Powell County	• Lake County • Mineral County • Ravalli County • Sanders County

Parties Involved

Because of lessons learned from previous attempts to develop interoperable systems, the Department of Administration (DOA), Information Technology Services Division (ITSD), Public Safety Service Bureau (PSSB), along with the Montana Disaster and Emergency Services (DES), initiated a process to facilitate the vision and development of interoperability fostered and led on the local level. Local representation from the county and tribal level came together, forming into eight Interoperable Voice Consortia, representing 56 counties and 7 Indian Nations. In addition, a ninth consortium (Mobile Data Terminal Consortium) was created to facilitate the development of an interoperable mobile data system in cooperation with two State of Montana agencies, the Montana Highway Patrol and the Montana Department of Transportation.

Each of these regional consortia, representing local leadership, has completed a comprehensive needs assessment that included the following scope:

- The system will provide advanced digital, secure voice and data communications for public safety.

- The system will be based on current Federal and state communications standards (ODP, Statewide Interoperability Executive Council (SIEC) & Project 25) in which local, tribal, state and Federal public safety and emergency management representatives can operate autonomously and transition seamlessly to communicate effectively in an all-hazard emergency mission role.

The Interoperability Montana (IM) Project is a partnership of local, state, tribal and Federal response agencies committed to improving and expanding interoperable communications throughout Montana. The partners are divided into three main categories: 1) Regional Consortia (representing local and tribal interests); 2) State of Montana Agencies (representing all levels of state radio users); 3) Federal and Private Partnerships.

1. Consortia

The IM Project consists of eight consortia and one mobile data terminal consortium, each with one voting membership on the Interoperability Montana Project Directors (IMPD). A site map of consortia is included above. As part of the IM Project, each of these consortium have agreed to work together and advance the development of interoperable communications infrastructure according to the priorities and funding established by the IMPD. The IMPD is a dynamic, cohesive group dedicated to the deployment of Montana-wide communications interoperability for public safety responders. Communications needs not addressed by the IMPD may be developed by the consortia, or individual agencies, as their own priorities and funding allow. The following is a list of IM Consortia:

Big Sky 11

The 12 jurisdictions making up the Big Sky 11 Consortium include Big Horn, Carbon, Golden Valley, Musselshell, Petroleum, Rosebud, Stillwater, Treasure, Wheatland and Yellowstone Counties and the Crow and Northern Cheyenne Reservations. These jurisdictions are jointly investigating the challenge of interoperable communications as it applies to the entities within jurisdictions that need to communicate.

Big Sky 11 seeks to implement a plan to alleviate the needs and shortfalls identified in this investigation with the goal of providing local law enforcement agencies, emergency response agencies, public works, public health, and medical facilities with the communications tools needed to communicate securely with the new Federal Government Communications Radios and provide a seamless network for the dissemination of database information between Federal, state and local law enforcement.

This consortium includes the state designated 2006 Metropolitan area (City of Billings/ Yellowstone County) for development of Montana's Tactical Interoperable Communications Plan (TICP).

The Big Sky 11 needs assessment has been used in the statewide planning process for infrastructure development.

Central Montana Interoperability Communications Consortium (CMICC)

Cascade County, the Chippewa Cree Tribe (Rocky Boy's Reservation), Chouteau County, Fergus County, Judith Basin County, Pondera County and Teton County have formed the Central Montana Interoperable Communications Consortium (CMICC), and have conducted a needs assessment of the current communications environment and are in the process of implementing interoperable communications solutions.

The project has assessed radio communications needs and capabilities of consortium members, both collectively and individually, and has been defining a comprehensive implementation strategy aimed at achieving a reliable, effective and fully interoperable communications system within and between the counties; between the Northern Tier Interoperable Project and the Southwestern Interoperability Project as well as among all local, tribal, state and Federal entities involved in emergency management and response.

Eastern Tier Interoperability Consortium (ETIC)

The ETIC, in eastern Montana, includes Carter, Custer, Dawson, Fallon, Garfield, McCone, Powder River, Prairie, Richland and Wibaux Counties. The ETIC has approximately 40,448 residents, covering roughly 26,434 square miles. The ETIC borders North Dakota, South Dakota and Wyoming, and is working to improve interoperable communications with these neighboring systems.

The Eastern Tier Interoperability Consortium's (ETIC) goal is to develop a multi-agency interoperable communications system between law enforcement, fire services, and Emergency Medical Services (EMS) that will improve coverage and dependability by upgrading existing radio equipment to Project 25 standards and coordinating local, tribal, state and Federal stakeholders.

I-15/90 Corridor Interoperability Communications Consortium (I-15/90)

Four counties (Anaconda-Deer Lodge, Beaverhead, Butte-Silver Bow and Granite) have formed the I-15/90 Corridor Interoperable Communications Consortium to conduct a needs assessment of the current communications environment and implement an interoperable communications strategy. The project assessment is defining a comprehensive implementation strategy aimed at achieving a reliable, effective and fully interoperable communications system between the Southwestern Interoperability Project and Missoula; and between all local, tribal, state and Federal entities involved in emergency management and response.

Mobile Data Terminal Consortium (MDT)

The Mobile Data Terminal (MDT) Consortium is a user group comprised of the Montana Highway Patrol, Montana Department of Transportation and municipal/county law enforcement representatives from Butte/Silver Bow, Cascade, Custer, Gallatin, Lewis and Clark and Yellowstone Counties. The purpose of this group is to enhance opportunities for law enforcement and other public safety agencies to access and utilize wireless mobile data systems. Only the above counties have access to the system. Current planning is to expand access to areas following the build-out of the IM backbone. All members of the MDT Consortium are members of a voice consortium.

Northern Tier Interoperability Consortium (NTIC)

Blaine, Daniels, Flathead, Glacier, Hill, Liberty, Lincoln, Phillips, Roosevelt, Sheridan, Toole and Valley Counties as well as the Blackfeet, Confederated Salish and Kootenai, Fort Belknap and Fort Peck Indian Nations signed letters of intent to form the Northern Tier Interoperability Consortium (NTIC) to set the basic framework for providing secure communications capability between local, state, tribal, and federal public safety agencies. Montana's Northern Tier Interoperability Project (NTIP) was initially established to provide a consolidated radio system for law enforcement purposes. With more than 550 miles of border with Canada, Montana law enforcement officials have critical communications interoperability requirements between levels of government and across jurisdictions. The NTIP radio system will provide advanced digital, secure voice and data communications for law enforcement interoperability across this vital border region. It will also improve homeland security by providing the means for military and civil authorities to communicate by radio. The Montana National Guard's homeland security mission will be enhanced through highly reliable, redundant communications capabilities to its Highline armories.

Several partners have projects already underway and NTIP will interconnect standards-based systems to make the most of existing resources, extend them to neighboring cooperators, and expand capabilities not only for law enforcement agencies, but also for EMS, fire and other public safety service providers. The Montana National Guard's homeland security mission will be enhanced through highly reliable, redundant communications capabilities to its Highline armories.

South Central Montana Interoperability Consortium (SCMIC)

The South Central Montana Interoperable Consortium (SCMIC) is composed of Gallatin, Madison, Meagher, Park and Sweet Grass Counties. The goal of the SCMIC is to evaluate the capabilities and needs of public safety agencies in the consortia and work with the IM Project to build a cost-shared, reliable, and effective network providing wireless voice communications between all levels of government and all types of public safety services.

Tri-County Interoperability Consortium

Broadwater, Jefferson, Lewis and Clark and Powell Counties along with the State of Montana Department of Corrections have formed the Tri-County Consortium (TIC). This is an ongoing, collaborative process, with the Powell County Sheriff's Department as the lead agency. Upgrading existing radio systems to P25 trunking capability will include project management, mobile units, handheld portable units, programming and major infrastructure improvements for repeaters, microwaves, towers and building improvements. The Southwestern Interoperability Project (SWIP) that Lewis and Clark County recently completed covers a large portion of the Tri-County area and uses P25 standard trunked and conventional technology. The TIC recognizes that P25 alone will not insure interoperability and intends to develop a frequency utilization plan for first responders and make certain that key elements such as the Mutual Aid and Common Frequencies (colored frequencies) are incorporated. TIC will consult with neighboring consortia to identify other common channels that will enhance mutual aid interoperability.

Western Interoperability Consortium (WICC)

The WICC, in western Montana, includes Lake, Mineral, Ravalli and Sanders Counties. The WICC has approximately 55,720 residents, with 7,872 square miles. The WICC borders Idaho, SWIP, I-15/90 and the NTIP, and is working to improve interoperable communications with these neighboring systems.

The Western Interoperable Communications Consortium's (WICC) goal is to develop a multi-agency interoperable communications system between law enforcement, fire services, and Emergency Medical Services that will improve coverage and dependability by upgrading existing radio equipment to Project 25 standards and coordinating local, state and Federal stakeholders. Members of the consortia primarily consist of local representatives from law enforcement, disaster and emergency services managers, fire and others agencies.

2. State of Montana Representation

The State of Montana is an active participant in the IM Project through support and active participation roles. In addition, the IMPD voted in November 2006 to extend voting membership to three state agencies: Department of Justice (Montana Highway Patrol), Department of Natural Resources and Conservation and the Department of Transportation. The following summary describes the participation and interest of these and other Montana agencies.

Montana Highway Patrol

The project will provide increased communications capability for Montana Highway Patrol (MHP). The Mobile Data backbone will provide extended coverage for the MHP who has a cooperative effort ongoing with counties and cities in the State of Montana for a shared mobile data infrastructure. The microwave backbone can provide interfaces to remote sites for direct connection back to central dispatch. The project will also provide the ability for MHP to directly communicate with all the tribal and local dispatch centers across the state and provide the basis for sharing of criminal information across jurisdictional boundaries.

The MHP has already committed resources to provide microwave system maintenance for the Lewis and Clark County, Northern Tier and initial IM Project build-out. It is anticipated that additional state commitment for development and maintenance will come in the near future. The MHP is accepting these resources on behalf and remain under the control of the IM project.

Montana Department of Natural Resources and Conservation

The Forestry Division of Montana's Department of Natural Resources and Conservation (DNRC) is dedicated to sustaining and protecting lives, property and natural resources through wildfire prevention; training; preparedness; and safe, aggressive suppression actions.

The DNRC radio communications system backbone is funded by Fire and Aviation Management and is designed primarily for fire detection and suppression. DNRC coordinates and fights fire in remote, rugged areas where radio coverage is a primary issue. Fire fighting activities are dangerous by their very nature. Loss of communications because of inadequate radio coverage or poor equipment not only increases the threat to personnel deployed to a site, but it also is a direct endangerment of the lives of DNRC fire fighters as well as those of other local, state, tribal and federal agencies participating on a site.

In Dec, 2006, DNRC became a voting member of the IM Project Directors (IMPD) board. DNRC has identified a substantial need for improvements in its radio coverage and P25 subscriber units, both of which require substantial funding. A fiscally pragmatic solution is to leverage its relationship with the Interoperability Montana Project to achieve mutually beneficial results. In light of the changing national security situation, DNRC's role in All-Risk incident assignments, regardless of jurisdiction or emergency declaration, has expanded.

Montana Department of Transportation

The project will provide the Montana Department of Transportation (MDoT) with backhaul capabilities for future intelligent transportation highway systems. Interoperability is not just voice communications, but it also allows for communications between law enforcement agencies and DOT for monitoring and alerting the public to dangerous situations. The Mobile Data portion of the system can also be used by various agencies identified through the DOT to track commercial carriers.

Public Safety Services Bureau

The Department of Administration, Information Technology Services Division (ITSD), Public Safety Services Bureau (PSSB), supports the IM Project through administrative, technical and funding support. Though not a voting member of the IMPD, the PSSB is an active member of the IM Technical and Governance Standing Committees. PSSB also assists with federal and private partnerships with the IM Project and has established important relationships with other states and Canada. PSSB is an non-partisan support agency for the IM Project. Its Bureau Chief serves as a non-voting member of the IMPD.

Montana Army National Guard

Standardized microwave capability across Montana will establish a portion of the communications redundancy necessary for command and control of Montana Army National Guard armories across the state. Secure voice communications capabilities will provide interoperability and system survivability and redundancy for National Guard units in services to civilian authorities for homeland security and during times of disaster.

The Montana National Guard is working to achieve exclusive broadband connectivity to each of its armory sites in the state, located at Anaconda, Belgrade, Billings, Bozeman, Chinook, Glasgow, Glendive, Hamilton, Harlowton, Havre, Lewistown, Libby, Malta, Miles City and Sidney

Department of Military Affairs – Disaster and Emergency Services

Disaster and Emergency Services (DES) is the state administrative agency for homeland security funds. Because the IM Project utilizes a large percentage of homeland security funding, DES is responsible for making sure that all grant funding is spent appropriately. DES also provides support for purchasing and accounting functions.

Statewide Interoperability Executive Council

The Statewide Interoperability Executive Council (SIEC) provides policy-level direction in matters related to planning, designing and implementing guidelines, best practices, and standard approaches to solve Montana's public safety communications interoperability problems and to

leverage any opportunity in support of a statewide system, including seeking federal or other funding, for statewide interoperability.

Other State of Montana Agencies

A number of other state agencies are involved in the planning process for Interoperability Montana. The Department of Administration, PSSB, sponsored a Needs Assessment conducted by Northrop Grumman Corporation to evaluate the needs of State of Montana agencies and how those needs/resources might interface with the IM Project.

The Department of Corrections completed a separate Needs Assessment and is planning to utilize the IM system across the state as it is built out. A copy of its Needs Assessment is available in the PSSB office. In addition, the Departments of Administration, General Services, Justice, Livestock, Military Affairs, Natural Resources and Conservation, and Public Health and Human Services are evaluating their communications needs and making individual plans to utilize the IM system.

3. Federal and Private Partnerships

United States Department of Interior.

The U.S. Department of Interior has a large number of land holdings in Montana through the Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM) and the National Park Service (NPS). Since the inception of the Northern Tier Interoperability Project, the DOI has been interested in the development of interoperable communications systems in Montana and has been working closely with the Northern Tier and IM representatives on issues such as site sharing and system utilization. Currently, the Northern Tier is working with Glacier National Park for the cooperative use of a site on the Blackfeet Reservation and sharing bandwidth.

The BLM and BIA have both expressed interest in sharing resources and having their law enforcement personnel on the IM system fulltime. In September 2006, the U.S, Department of Interior signed a Memorandum of Understanding to cooperate on the IM Project. A copy of this may be found at link:

http://interop.mt.gov/docs/MOU_DOI_Montana_October_2006.pdf

United States Air Force (USAF).

The IM Project will provide the United States Air Force (USAF) with a microwave backbone to connect its trunked radio sites in Central Montana to enhance communications. The USAF will have the ability to disseminate sensitive data and voice information to its responders in the field and back to command. The pathway will connect to its master controller in Colorado to provide seamless communications for Montana Air Force personnel.

The USAF requires the microwave connectivity of sites at Belgian Hill, Building 500 (Malmstrom Air Force), Cooney, Flying J, Garneill, Highwood Baldy, Judith Peak, Pacific Steel (Great Falls), South Moccasin "BLM", Sullivan Hill, Teton Ridge.

1.2 Participating Agencies in the Development of the Montana SCIP - *Addendum*

Representatives and departments who participate in Interoperability Montana meetings and had input into the state SCIP are listed below.

Governor's Office

- Sheena Wilson, Governor Brian Schweitzer's Deputy Chief of Staff

State of Montana

- Public Safety Services Bureau, Information Technology Services Division, Dept. of Administration
- Montana Dept. of Natural Resources and Conservation
- Montana Highway Patrol
- Montana National Guard

State Transportation Agencies

- Kevin Bruski, Dept. of Transportation

Regional Planning Committee Chairperson for 700 and 800 MHz

- Jerry Dupler, President, Timberline Communications

Statewide Interoperability Executive Council (SIEC)

- Dick Clark, State of Montana Chief Information Officer, SIEC Chair
- Kathy Bessette, Hill County Commissioner
- Mary Failing, Emergency Medical Services Representative, Poplar, MT
- Larry Fastbender, Deputy Attorney General, Dept. of Justice
- Mike Ferriter, Director, Department of Corrections
- Jeff Hagener, Director, Department of Fish, Wildlife and Parks
- William R. Hedstrom, Chair, Board of Livestock
- Elizabeth Horsman, Assistant US Attorney
- Captain Dick Lewis, Missoula Police Dept.
- Chuck Lee, Fallon County 9-1-1
- Sheriff Cheryl Liedle, Lewis & Clark County Sheriff
- Jim Lynch, Director, Department of Transportation
- Joan Miles, Director, Department of Public Health and Human Services
- MG Randall Mosley, Adjutant General, Department of Military Affairs
- Jodi O'Sullivan, Polson Volunteer Fire Department
- Mary Sexton, Director, Department of Natural Resources and Conservation
- Ron Tussing, Mayor, City of Billings
- Sheena Wilson, Deputy Chief of Staff, Governor's Office
- Chief Chuck Winn, Bozeman Fire Department

Interoperability Montana Project Directors (IMPD)

Voting Members:

- **Chief Alan Michaels, IMPD Chair**
  Eastern Tier Interoperability Consortium Project Director
- **Ed Auker**
  Big Sky 11 Consortium Project Director
- **Joe Brenneman**
  Flathead County Commissioner Project Director
- **Kevin Bruski**
  Montana Dept. of Transportation
- **Sheriff Jim Cashell**
  Mobile Data Terminal Consortium Project Director
- **Sheriff Wayne Dusterhoff**
  Northern Tier Interoperability Consortium Project Director
- **George Gupton**
  Western Interoperable Communications Consortium Project Director
- **Sheriff Scott Howard**
  Tri-County Consortium
- **Cheri Kilby**
  Central Montana Interoperable Communications Consortium Project Director
- **Dave McPherson**
  I-15/90 Corridor Consortium
- **Ted Mead**
  Montana Dept. of Natural Resources and Conservation
- **Kerry O'Connell**
  South Central Montana Interoperability Consortium Project Director
- **Roger Smith**
  Montana Highway Patrol

Non-Voting Members:

- **Chris Christensen**
  Chief, Public Safety Services Bureau (PSSB)
- **David Hinds**
  Project Manager, U.S. Air Force, Malmstrom
- **Dan Sullivan**
  Montana Disaster and Emergency Services (DES)
- **Col. Ken Switzer**
  Montana National Guard

Eight Regional Voice Consortia and One Mobile Data

Big Sky 11 Consortium

The 12 jurisdictions making up the Big Sky 11 Consortium include Big Horn, Carbon, Golden Valley, Musselshell, Petroleum, Rosebud, Stillwater, Treasure, Wheatland and Yellowstone counties as well as the Crow and Northern Cheyenne Reservations.

Local Elected Officials

- Leslie Burroughs, Golden Valley County Commissioner
- Floyd Fisher, Golden Valley County Sheriff

- Jim Reno, Yellowstone County Commissioner
- Mack Cole, Treasure County Commissioner

Local Emergency Response Services

- Ray Hetherington, Wheatland County 9-1-1
- Dorothy Gremaux, Central Montana 9-1-1

Local Health Officials

- Tony Rich, St. Vincent Healthcare

Local Fire Response Services

- Alan Harper, Billings Fire
- John Staley, Billings Fire

Local Law Enforcement

- Vince Wallis, Yellowstone County Sheriff's Office
- Bill Michaelis, Yellowstone County Sheriff's Office

State Law Enforcement

- Dale Osborne, Montana Highway Patrol
- Roger Smith, Montana Highway Patrol

Local Emergency Management

- Ed Auker, Bighorn County Disaster and Emergency Services
- Darrel Krum, Carbon County Disaster and Emergency Services
- Lisa Solf, Petroleum County Disaster and Emergency Services
- Jeff Gates, Musselshell County Disaster and Emergency Services
- James Kraft, Yellowstone County Disaster and Emergency Services
- Ken Mesch, Stillwater County Disaster and Emergency Services
- Carole Raymond, Rosebud County Disaster and Emergency Services

State Emergency Management and Homeland Security

- Charlie Hanson, Montana Disaster and Emergency Services

Tribal Governments

- Susette Nanto-Spang, Crow Reservation Disaster and Emergency Services
- Benito Morrison Sr., Crow Reservation Disaster and Emergency Services
- Cindy Burns, Northern Cheyenne Tribe
- Ed Joiner, Northern Cheyenne Tribe Disaster and Emergency Services

Military Organizations

- Montana National Guard (190th Combat Support Battalion)

Federal agencies that need to be interoperable with state and local emergency responders

- Bruce Brown, FBI
- Patrick Scott, Bureau of Land Management
- Edward Lone Fight, Crow Agency – Bureau of Indian Affairs

Other Non-Government Organizations

- Larry Brewster, NorthWestern Energy and Billings City Council

Central Montana Interoperability Communications Consortium (CMICC)

CMICC is made up of representatives from Cascade County, the Chippewa Cree Tribe (Rocky Boy's Reservation), Chouteau County, Fergus County, Judith Basin County, Pondera County and Teton County as well as the U.S. Air Force.

Local Elected Officials

- Tom Kuka, Pondera County Sheriff
- Larry Ophus, Choteau County Sheriff

Local Emergency Response Services
- Dorothy Gremaux, Central Montana 9-1-1

Local Law Enforcement
- Corky Grove, Great Falls Police Chief
- Tom Kuka, Pondera County Sheriff
- Jesse Callender, Cascade County Sheriff's Office

State Law Enforcement
- Roger Smith, Montana Highway Patrol

Local Emergency Management
- Cheri Kilby, Fergus County Disaster and Emergency Services
- Vince Kolar, Cascade County Disaster and Emergency Services
- Debra Coverdell, Teton County Disaster and Emergency Services
- Leanne Hermance, Pondera County Disaster and Emergency Services
- Linda Williams, Chouteau County Disaster and Emergency Services

Tribal Governments
- Dallas Sun Child, Rocky Boy's Reservation

Military Organizations
- Montana National Guard
- David Hinds, U.S. Air Force, Malmstrom AFB

Eastern Tier Consortium

The ETIC includes members from Carter, Custer, Dawson, Fallon, Garfield, McCone, Powder River, Prairie, Richland and Wibaux counties.

Local Elected Officials
- Rusty Jardee, Carter County Sheriff
- Tony Harbaugh, Custer County Sheriff
- Doug Buxbaum, Dawson County Commissioner
- Jim Skillestad, Dawson County Commissioner
- Craig Anderson, Dawson County Sheriff

Local Emergency Response Services
- Chuck Lee, Fallon County 9-1-1 Coordinator

Local Fire Response Services
- Rich Kransky, Miles City Fire and Rescue

Local Law Enforcement
- Craig Anderson, Dawson County Sheriff
- Rich Rowe, Undersheriff, Dawson County
- Denny Palmer, Richland County Sheriff's Office
- Lt. Darrin Moser, Chief of Security, Dawson County Correctional Facility
- Alan Michaels, Glendive Police Chief; ETIC Project Director
- John Blain, Powder River Sheriff

State Law Enforcement
- Dale Osborne, Montana Highway Patrol

Local Emergency Management
- Candy Loehling, Carter County DES Coordinator
- Pam Crisafulli, Dawson County DES Coordinator
- Carol Hellyer, Garfield County DES Coordinator
- Alan Stempel, McCone County DES Coordinator
- Mistica Hisdahl, McCone County DES Coordinator

- John Pisk, Prairie County DES Coordinator
- Butch Renders, Richland County DES Coordinator
- Frank Datta, Wibaux County DES Coordinator

State Emergency Management and Homeland Security

- Norman Parrent, District IV Representative, Montana Disaster and Emergency Services

Federal agencies that need to be interoperable with state and local emergency responders

- Bruce Brown, FBI

I-15/90 Corridor Consortium

The following four counties, Anaconda-Deer Lodge, Beaverhead, Butte-Silver Bow and Granite) form the I-15/90 Corridor Interoperable Communications Consortium.

Local Elected Officials

- Sheriff John Walsh, Butte-Silver Bow
- Cliff Nelson, Granite County Commissioner
- Charlie O'Leary, Butte-Silver Bow County Commissioner

Local Fire Response Services

- Jeff Miller, Director of Fire Services, Butte-Silver Bow
- Chief Scott Marsh, Dillon Volunteer Fire Department
- Steve Jorgenson, Anaconda Fire Department

Local Law Enforcement

- Sheriff John Walsh, Butte-Silver Bow

State Law Enforcement

- Roger Smith, Montana Highway Patrol

Local Emergency Management

- Bill Converse, Anaconda-Deer Lodge County Disaster and Emergency Services
- Larry Laknar, Beaverhead County Disaster and Emergency Services
- Bob McWilliams, Beaverhead County Disaster and Emergency Services
- Bob Mazzolini, Granite County Disaster and Emergency Services
- Bart Bonney, Granite County Disaster and Emergency Services
- Roger Ebner, Butte-Silver Bow Emergency Management Coordinator

Federal agencies that need to be interoperable with state and local emergency responders

- Bruce Brown, FBI

Northern Tier Interoperability Consortium (NTIC)

The Northern Tier Interoperability Consortium is the largest communications consortium in the state, consisting of 12 counties and 4 Indian Nations. The counties of Blaine, Daniels, Flathead, Glacier, Hill, Liberty, Lincoln, Phillips, Roosevelt, Sheridan, Toole and Valley participate as well as the Blackfeet, Confederated Salish and Kootenai, Fort Belknap, and Fort Peck Indian Nations.

Local Elected Officials

- Glenn Huestis, Blaine County Sheriff
- Lalon Trang, Daniels County Commissioner
- Joe Brenneman, Flathead County Commissioner Chairman
- Wayne Dusterhoff, Glacier County Sheriff
- Larry Hendrickson, Liberty County Commissioner

- Tom Miller, Phillips County Sheriff
- Jim Shanks, Roosevelt County Commissioner
- Pat Ulrickson, Sheridan County Sheriff
- David Miller, Toole County Commissioner
- Donna Matoon, Toole County Sheriff

Local Emergency Response Services

- Nora Kennedy, 9-1-1 Coordinator, Blackfeet Indian Nation
- James Laidlaw, EMS
- Yvonne Hunnewell, 9-1-1 Coordinator, Liberty County

Local Law Enforcement

- Wayne Dusterhoff, Glacier County Sheriff
- Glenn Huestis, Blaine County Sheriff
- Don Brostrom, Undersheriff, Hill County
- Ron Knudsen, Hill County LEPC
- Daryl Anderson, Lincoln County Sheriff
- Donna Matoon, Toole County Sheriff
- Vernon Buerkle, Valley County Undersheriff

State Law Enforcement

- Dale Osborne, Montana Highway Patrol
- Roger Smith, Montana Highway Patrol

Local Emergency Management

- Haley Gustitis, Blaine County LEPC
- Curtis Petrik, Daniels County Disaster and Emergency Services Coordinator
- Cindy Mullaney, Deputy Director, Office of Emergency Services, Flathead County
- Marc McGill, Director, Emergency Mgmt. Lincoln County
- Scott Moran, Phillips County Disaster and Emergency Services Coordinator
- Daniel Sietsema, Roosevelt County Disaster and Emergency Services Coordinator
- Curtis Petrik, Sheridan County Disaster and Emergency Services Coordinator
- Rick Seiler, Valley County Disaster and Emergency Services Coordinator

Tribal Governments

- Janice Hawley, Human Resource Manager, Fort Belknap Reservation
- Arlyn Headdress, Council Member, Fort Peck Reservation
- Nora Kennedy, 9-1-1 Coordinator, Blackfeet Indian Nation
- Jolene Jacobson, Office of Emergency Management, Salish & Kootenai Tribe

Military Organizations

- Montana National Guard

Federal agencies that need to be interoperable with state and local emergency responders

- Bruce Brown, FBI

Other Non-Government Organizations

- Lee Rampley, BNSF Railway

South Central Montana Interoperability Consortium (SCMIC)

The South Central Montana Interoperable Consortium (SCMIC) is composed of representatives from Gallatin, Madison, Meagher, Park and Sweet Grass Counties.

Local Emergency Response Services

- Ben Hess, Gallatin County 9-1-1 Director
- Steve Digiovanna, Communications Coordinator, Madison County

- Maebeth Seidlitz, Meagher County 9-1-1 Coordinator
- Peggy Glass, Park County 91-1 Coordinator

Local Fire Response Services
- Jason Shrauger, Bozeman Fire

Local Law Enforcement
- Rick Seidlitz, Meagher County Sheriff

State Law Enforcement
- Roger Smith, Montana Highway Patrol

Local Emergency Management
- Kerry O'Connell, Sweet Grass County Disaster and Emergency Services
- Christopher W. Mumme, Madison County Disaster and Emergency Services

Tri-County Interoperability Consortium

Broadwater, Jefferson, Lewis and Clark and Powell Counties along with the State of Montana Department of Corrections have formed the Tri-County Consortium (TIC).

Local Elected Officials
- Scott Howard, Powell County Sheriff
- Craig Dolittle, Jefferson County Sheriff

Local Emergency Management
- Sally Buckles, Jefferson County Disaster and Emergency Services Coordinator

Local Law Enforcement
- Ben Knapp, Undersheriff, Broadwater County
- Leo Dutton, Undersheriff Lewis and Clark County Sheriff's Office
- Jack Spillman, Radio System Administrator, Lewis and Clark County

State Law Enforcement
- Bill Fleiner, Department of Correction, MT State Prison
- Harlan Sipe, Dept. of Corrections maintenance Manager
- Roger Smith, Montana Highway Patrol

Military Organizations
- Montana National Guard

Western Interoperability Consortium (WICC)

The WICC, in western Montana, includes Lake, Mineral, Missoula, Ravalli and Sanders Counties.

Local Elected Officials
- Greg Chilcott, Ravalli County Commissioner
- Kathleen Driscoll, Ravalli County Commissioner
- Chris Hoffman, Ravalli County Sheriff
- Charlotte Grandstaff, Ravalli County Commissioner

Local Emergency Response Services
- Mark Denke, Sanders County 9-1-1 Manager
- Jane Ellis, Citizen Advocate 9-1-1 Advisory Board
- Joanna Hamilton, Ravalli County 9-1-1
- Charmell Owens, Ravalli County Public Health Nurse

Local Law Enforcement
- Chris Hoffman, Ravalli County Sheriff
- Dave McGinnis, Missoula County Sheriff's Dept.

State Law Enforcement

- Roger Smith, Montana Highway Patrol

Local Emergency Management

- George Gupton, Mineral County Disaster and Emergency Services
- Erik Hoover, Ravalli County Office of Emergency Management
- Bill Naegeli, Sanders County Disaster and Emergency Services
- Ron Nichols, Ravalli County Disaster and Emergency Services
- Bob Reid, Missoula County Disaster and Emergency Services
- Steve Stanley, Lake County Disaster and Emergency Services

Mobile Data Terminal Consortium (MDT)

The Mobile Data Terminal (MDT) Consortium is a user group comprised of the Montana Highway Patrol, Montana Department of Transportation and municipal/county law enforcement representatives from Butte/Silver Bow, Cascade, Custer, Gallatin, Lewis and Clark and Yellowstone Counties.

Local Elected Officials

- Jim Cashell, Gallatin County Sheriff
- John Walsh, Butte-Silver Bow Sheriff

Local Emergency Response Services

- Peggy Glass, Park County 9-1-1 Coordinator
- Ben Hess, Gallatin County 9-1-1 Director

Local Fire Response Services

- Chuck Winn, Bozeman Fire
- Jason Shrauger, Bozeman Fire

Local Law Enforcement

- Blaine Weston, Deputy Sheriff, Yellowstone County Sheriff's Office
- Keith Gruenig, Yellowstone County Sheriff's Office
- Leo Dutton, Undersheriff, Lewis and Clark County
- E. J. Clark, Police Chief, Belgrade Police Department
- Mark Lachapelle, Bozeman Police Department
- Scott O'Connell, Helena Police Department

State Law Enforcement

- Dale Osborne, Montana Highway Patrol
- Roger Smith, Montana Highway Patrol

State IT

- Bill Griffenberg, Information Technology Services Division, Dept. of Administration

Military Organizations

- Montana National Guard

1.3 Point of contact (POC) for a full-time interoperability coordinator.

A single POC has not yet been identified by the Interoperability Montana Project (IM). Currently the executive officer and management team is being defined by the Interoperability Montana Governance Committee (IMGC) and it will make a recommendation to the Interoperability Montana Project Directors (IMPD) in the near future. The roles and responsibilities will be defined as a result of this process for the POC as will all other staffing needs. Please see Appendix A for Points of Contact.

1.4 Current communications and interoperability environment of the emergency response effort.

The IM Project has grown out of the need for improved wireless public safety communications and the success of two Concept Demonstration Projects (CDPs) initiated in Montana since 2002. The idea of a connected and compatible statewide Public Safety Land Mobile Radio System (LMR) in Montana has been discussed and studied for over 20 years. Currently, the infrastructure of state and local response communities in the state is aged and in need of improvement. Systems are built on a local basis, often with no coordination with other response groups in regional areas. Response organizations may be utilizing incompatible or legacy radio systems with other responders.

The need for LMR 'interoperability' of local, state, tribal and Federal agencies for both day-to-day and significant events is critical. Currently the State of Montana has a limited interoperability capability consisting of statewide mutual aid frequencies operating in simplex mode. For normal, localized incidents, this system works well but it falls short of interoperable communications needs for large-scale incidents.

Two projects were designated as CDPs by the State Interoperable Executive Council (SIEC). CDP#1 – Southwest Interoperability Project in Lewis and Clark County, demonstrated digital/trunking technology with a deployed, county-wide system involving all responders with a public safety radio. CDP#2 – the Northern Tier Interoperable Project, developed a strategy to build upon this proven system to a regional network, linking all public safety agencies along the Canadian border with the Lewis and Clark system. These projects formed the foundation for future statewide planning.

To develop optimum interoperability, LMR systems must be developed on a standards-based, shared system, allowing continuity for the entire local, state, tribal and Federal response community. A standard, compatible mechanism must be deployed linking agencies and consortia around the state.

Initial efforts to establish the standards based system began through the SIEC. The SIEC is comprised of local, state, tribal, federal, and other public service agency representatives. Its purpose is to provide policy level direction for matters related to planning, designing and implementing guidelines, best practices, and standard approaches to solve Montana's public safety communications interoperability problems and to leverage any opportunity in support of a statewide system, including seeking federal funding, or other funding, for statewide interoperability. Sharing of a common radio infrastructure will reduce duplications of capital investment projects, thereby reducing total radio communications cost for each participating agency. The current adoption of the Project 25 Standard (P25) by the SIEC, the IMPD, and State

of Montana Public Safety Services Bureau (PSSB) begins to address these issues, but the current approach does not define the approach to the extent necessary to ensure participation and maximum interoperability among agencies.

The process of developing and implementing a standards-based LMR radio system gained momentum with the attacks of September 11, 2001 and more recent large-scale natural disasters in the U.S. and elsewhere. The focal point of response problems during these events focused on the inability of response agencies to communicate effectively. Issues encountered included old, unreliable infrastructure, different radio systems and incompatible frequency bands.

Homeland Security priorities were established through the governor's approval of the Montana Homeland Security Plan. This plan prioritizes interoperable communications as the Number 2 priority for Montana.

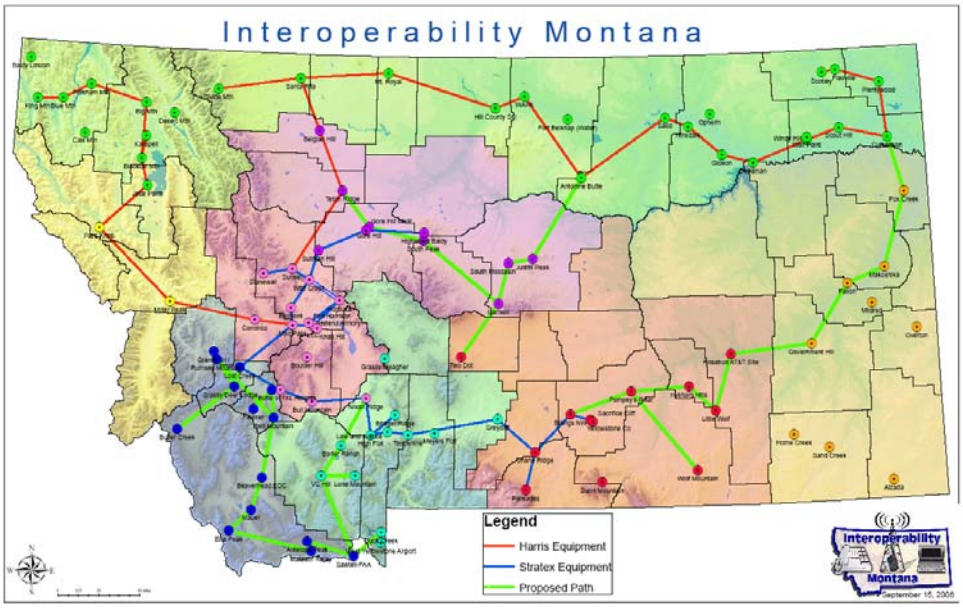
Following recent disasters, the federal government began distributing funding to local governments and states through the Department of Homeland Security, for preparedness and response activities. The State of Montana, Disaster and Emergency Services (DES) Division of the Department of Military Affairs has the responsibility for coordination of the Montana Homeland Security Task Force, (appointed by the Governor) and serves as the State Administrative Agency (SAA) for the Department of Homeland Security, Office of Domestic Preparedness (ODP).

As a result of funding priorities given to regional and statewide communications planning, Montana counties and Indian Nations formed into regional consortia for the purpose of planning and infrastructure development. These consortia were modeled after the Northern Tier Interoperability Consortium, which was established in 2004 by 12 counties and 4 tribes to address communications deficiencies for law enforcement agencies and other emergency responders along the Canadian border. This group, in partnership with the State of Montana, developed a communications plan and is currently in the final stages of completing the Northern Tier Interoperability Project, which will become operational during the Spring of 2008.

At the present time, there are nine consortia (eight regional voice and one mobile data) working to improve interoperable communications throughout the state. Seeing the need to consolidate planning and project implementation efforts, the nine consortia formed the Interoperability Montana Project in late 2005. The IM project is led by the IMPD—represented by each consortium—that develops project goals, establishes priorities and implements the project based on those priorities. In November of 2006, three State of Montana agencies were added to the IMPD (Transportation, Highway Patrol and Natural Resources and Conservation). To assist the IMPD, Northrop Grumman Corporation, through the Master Information Services (MIS) contract, serves as Project Manager.

The IM Project is currently developing communications infrastructure across the state. A summary of this is shown on the project map. This infrastructure includes improving reliability of radio transmission sites, developing trunked radio coverage for use by local, tribal, state and federal partners, developing a digital microwave system to connect sites, and providing backbone infrastructure to develop future expansion of technologies such as mobile data, remote sensing and data transmission for public entities. The success of this project will open up numerous voice and data opportunities for local public safety and State of Montana agencies across the state.

Figure 5: Infrastructure Map



1.5 Problem definition and possible solutions addressing the challenges identified in achieving interoperability within the SAFECOM Interoperability Continuum.

Project Definition and Goal

Montana has many challenges to communications interoperability. Some of these needs are focused on simple 'operability' issues. Currently, most of Montana's wireless communications infrastructure is aging and does not have up-to-date technology. In addition, wireless communications in some areas is lacking. Because of Montana's rural nature, mountainous terrain and the fact it is the fourth largest state in the U.S., with nearly 550-mile border with Canada, many regions in Montana lack basic coverage.

Most radio infrastructure is between 10-and 30-years old, is unreliable and has high maintenance costs. End user units are also aging and have limited capability, thus limiting interoperability. Most agencies operate in the VHF band in a conventional mode, relying on simplex mutual aid frequencies for interagency cooperation. Several State of Montana and Federal agencies have parallel statewide systems without standard interoperability.

SIEC Definition Statement (Public Safety Land Mobile Radio):

During the development of the locally led consortia, the Statewide Interoperability Executive Council (SIEC) adopted a policy definition for interoperability for the State of Montana, as stated below. This definition of interoperability also was approved by the IMPD.

Definition Statement:

Interoperability refers to the ability of public safety emergency responders to work seamlessly with other systems or products without any special effort. Wireless communications interoperability specifically refers to the ability of public safety officials to share information via voice and data signals on demand, in real time and when needed.

Technical Requirement:

The technology needed to meet the Interoperability Definition is that public safety radio communications in Montana will be a standards-based shared system of systems. The radio system will be a wide area system for use by public safety responders.

Through the deployment of a migration plan that identifies the steps and process for each participating agency, the system will combine P25 trunked and P25 digital / analog conventional technologies to provide interoperable communications among P25 narrowband digital trunked and existing conventional users. It will operate narrowband in the VHF frequency range and will use a protected high-capacity digital microwave backbone for voice and data interconnect traffic.

The system will provide advanced channel management for the shared use of frequencies, seamless roaming throughout the respective trunked areas (footprint) and enhanced responder safety through embedded signaling, while at the same time enhancing interoperable communications with existing legacy VHF radios. At a lower level of interoperability, the current mutual aid channels will be maintained and available for use.

While all agencies recognize the optimum goal of a trunked system, they will need to migrate to trunking in a step/phased approach. With this ultimate goal, however, all agencies will purchase equipment that is trunking capable or upgradeable to trunking. Progression through these steps will vary in a given time based on operational needs, and ultimately funding available.

This approach will allow public safety responders in Montana to exchange voice and data communications on demand, in real time during emergencies and disasters.

Consistency with SAFECOM Guidance

In addition to the adoption of Montana's Interoperability Definition and Technical Requirements, the Interoperability Montana (IM) Project has adopted the SAFECOM interoperability guidance. This continuum provides a simple and common methodology for evaluating the effectiveness of interoperable communications processes in five key areas:

- Governance
- Standard Operating Procedures
- Technology
- Training and Exercises
- Usage

It is the goal of the IM Project to move toward the optimal level of interoperability in each of these target areas. Through the grass root coordination of the IM Project and adoption of standard technologies, this goal will become reality in the future.

Objective

The objective of the IM Project is to develop an interoperable P25 Phase 1 standards-based VHF multimode radio communications system based on Federal and state communications standards in which federal, state and local public safety and emergency management representatives can operate autonomously and transition seamlessly to communicate effectively during emergencies and disasters. Such a system will provide advanced digital, secure voice and data communications and improve homeland security by providing the means by which public safety responders can communicate. It will also provide for backwards compatibility during its implementation. Migration to trunking will take place in a step/phased approach, and progression through these steps will vary in a given time based on operational needs and available funding.

The goal is to build a cost shared, reliable and effective communications system capable of providing interoperable wireless voice systems for first responders, mutual aid and emergency medical response roles to ensure the safety and well being of all Montanans.

Radio communications will be a wide-area system for use by public safety responders. Through the deployment of a migration plan that identifies the steps and process for each participating agency, the system will combine P25 trunked and P25 digital/analog conventional technologies to provide interoperable communications among P25 narrowband digital trunked and existing conventional users. All equipment must be compatible and seamlessly integrate with infrastructure equipment deployed in CDP # 1 - Southwest Interoperability Project in Lewis and Clark County and CDP # 2 - Northern Tier Interoperability Project. It will operate narrowband in the VHF frequency range and will use a protected, high-capacity digital microwave backbone for voice and data interconnect traffic. This system will emphasize flexibility and will include consideration of organizational relationships as well as detailed and prioritized schedules of equipment procurement, training and exercises necessary to fully achieve the overall objective. The primary means of acquisition will be through State of Montana term contracts and competitive bid processes.

Priorities

The main priorities will be:

- To develop a standards-based voice communications system
- To develop a shared, digital microwave system capable of supporting current needs and future trunked systems
- To plan a phased, modular approach for implementation
- To promote spectrum management
- To allow existing users to migrate seamlessly into the shared system
- To educate the legislature and key policy-makers in local, state, and federal governments in order to gain strong support and adequate funding.
- Alignment with State Information Technology Plan and Goals

Organizational Process

The organizational process for conducting the project will include:

- Project oversight and deployment with leadership from the IMPD, in cooperative agreement between the nine regional consortia and the State of Montana;
- A joint project team, consisting of technical and administrative staff from participating partners, to manage all phases of the project;
- Project technical direction from the IMTC, which advises the project directors in matters of project scope and technical issues. The IMTC is a partnership of IMPD members, State of Montana agencies and Federal user groups which utilize wireless communications in Montana;
- Professional project management of all phases contracted through Northrop Grumman Corporation off the State of Montana's MIS contract;
- Governance guidance and development through a partnership of user groups and administrative agencies forming the Interoperability Montana Governance Committee (IMGC).

Inter-relationships

The SIEC provides policy-level direction in matters related to planning, designing and implementing guidelines, best practices, and standard approaches to solve Montana's public safety communications interoperability problems and to leverage any opportunity in support of a statewide system, including seeking federal or other funding, for statewide interoperability.

Governor Martz continued the Montana Public Safety Communications Council as the SIEC by Executive Order on June 14, 2004 with appointment of both new and continuing members. Per the Executive Order, the SIEC has defined interoperability and technical requirements effective August 5, 2005. Governor Martz also endorsed by Executive Order APCO Project P25 as a standard for Montana.

Governor Schweitzer continued the SIEC by Executive Order on September 7, 2006 with the appointment of 10 voting and 9 ex officio members. The IMPD, under authority of the SIEC, is moving forward with the planning and implementation of interoperable communications in Montana.

The Senior Advisory Committee (SAC) provides input to the State Administrative Agency (SAA) on Department of Homeland Security (DHS) grants and recommends priorities for funding. The SAC, like the SIEC, works closely with the IMPD. These inter-relationships provide for a fully integrated implementation approach on technology, operations and funding. Membership on the SAC includes multiple agencies and interest groups as outlined in Exhibit B at the end of this plan.

State agencies impacted by the IM Project include the departments of Administration, Corrections, Justice, Livestock, Military Affairs, Natural Resources & Conservation, Public Health & Human Services and Transportation. Each of these agencies has communications needs and assets. Recently, each agency participated in a Montana State Agency Needs Assessment sponsored by the Public Safety Services Bureau (PSSB). Each agency is developing strategies at

varying levels of participation, to interact, assist in developing and participate in the IM Project. Several agencies will conduct migration immediately, while others will develop long-range plans. Several agencies, including the departments of Corrections, Highway Patrol and Transportation, already utilize CDP # 1 – Southwest Montana Interoperability Project in Lewis and Clark County, along with the Northern Tier Project that are precursors to the IM Project.

1.6 Tactical Interoperability Communications Plans (TICP) in the state.

The Montana designated metropolitan area Tactical Interoperability Communications Plan (TICP) was created for the Yellowstone County Region. The Yellowstone County Region was established during a kick-off meeting, which was held on February 21, 2006, at the Yellowstone County Court House, 217 North 27th Street, Billings, Montana. Various local officials were in attendance. The Yellowstone County Region was defined to include the Cities of Billings, Broadview, and Laurel, within Yellowstone County.

Yellowstone County is located in south central Montana. Billings, the county seat, is the state's largest city comprising of more than 100,000 citizens. The communities, towns, and cities within Yellowstone County are: Acton, Ballantine, Billings, Broadview, Custer, Huntley, Laurel, Pompey's Pillar, Shepherd and Worden, including Lockwood (unincorporated.) Additionally, a portion of the Crow Indian Reservation lies within Yellowstone County boundaries.

The reporting jurisdictions in the Yellowstone County Region are as follows:

- City of Billings Police Department
- City of Laurel Police Department
- Montana Highway Patrol
- Yellowstone County Sheriff's Office
- Billings Fire Department
- Emergency Medical Services
- Yellowstone City/County Health Department
- Deaconess Hospital (now Billings Clinic)
- St Vincent's Hospital

The TIC Plan is intended to apply to the jurisdictions, as defined above. Specifically, the plan is intended to be used by the first responder disciplines that would respond to the scene of an emergency, as well as other disciplines that would need to be coordinated with during the response. Please see Appendix A for the Point of Contact for the TIC Plan.

1.7 Scope and Timeframe of the Plan.

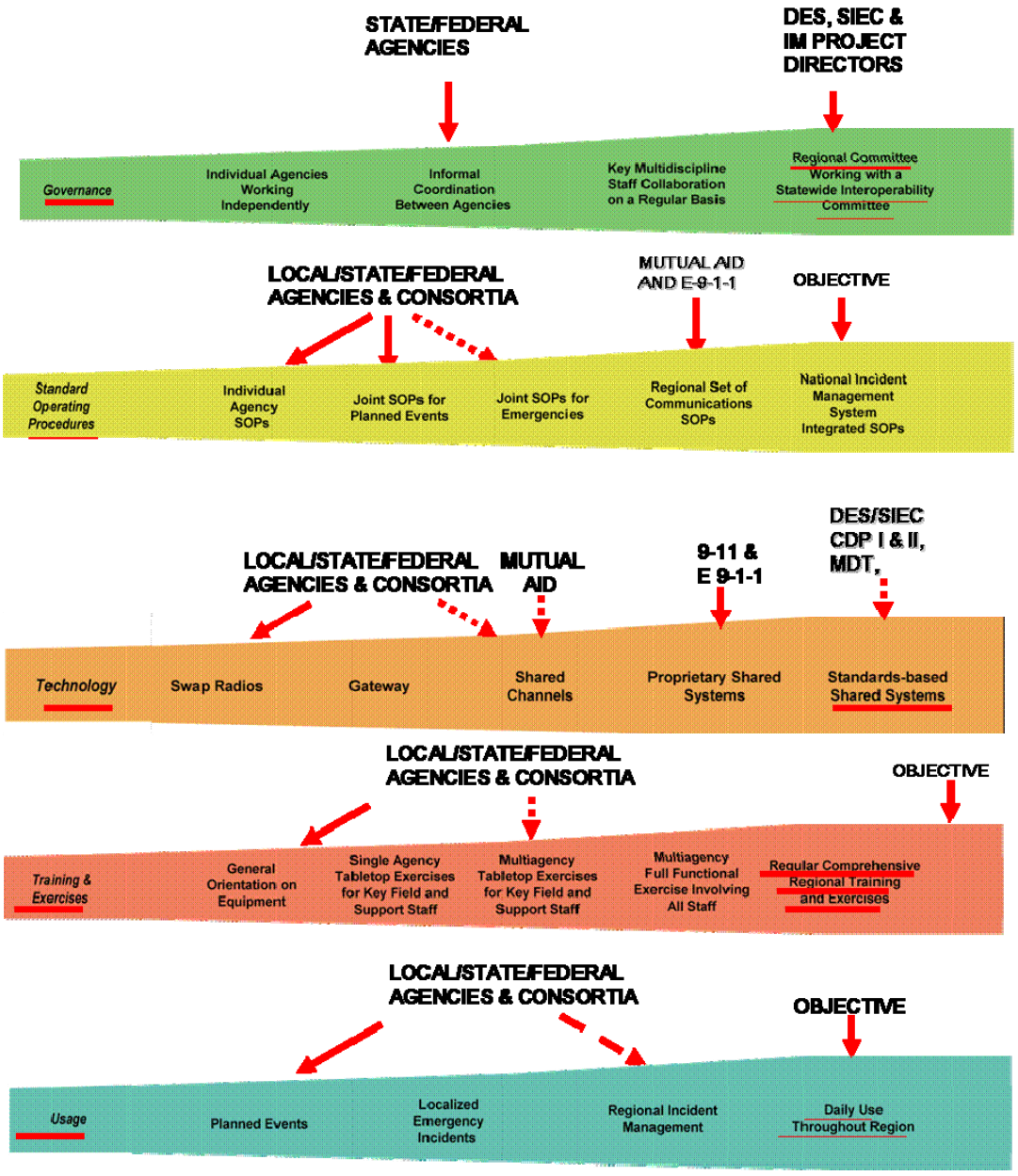
The IM Project and the State of Montana are committed to develop a Statewide Communications Interoperability Plan (SCIP) that establishes a formalized governance structure to sustain the statewide radio system and proposes a recommended continuous funding mechanism for on-going maintenance, operations and expansion of the system. The Montana Statewide Plan (SCIP) will provide a framework that addresses the critical elements for planning and implementing

statewide interoperability solutions. The elements of this plan will include the SAFECOM Continuum Framework that includes governance, standard operating procedures, training and exercises and usage of interoperable communications.

A successful plan will include:

- **Governance Structure** (finalize formal permanent structure: November 2007)
- **Identify & Secure Funding Streams** (January 2008)
- **Plans Development**
    1. Training Plan (December 2007): Please see Appendix B.
    2. Network Plan (September 2007): Please see Appendix C.
    3. Frequency Plan (September 2007): Please see Appendix D.
    4. Maintenance Plan (March 2008)
    5. Replacement Plan (March 2008)
- **Marketing & Educational Outreach**
- **Implementation Rollout**

Figure 6: SAFECOM Continuum



2. Strategy

2.1 Strategic Vision, Goals, and Objectives for improving emergency response interagency wireless communications statewide.

MISSION: Create a Montana-wide, State of the Art, Public Safety Voice and Data Interoperability Communications System

VISION: A Seamless Communications System

GOALS:

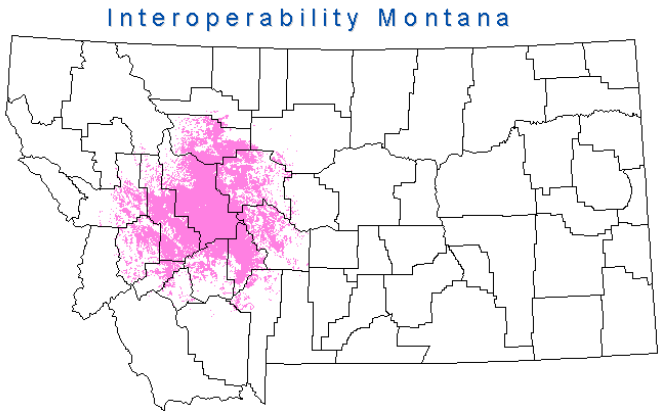
1. Vehicle by which Agencies, Stakeholders and Users Participating in the IM Project, Plan for an Integrated System of Management and Implementation.
2. Ensure a Place at the Table for Relevant Agencies and Users that Formalizes Equality in Decision-Making.

The State of Montana's Homeland Strategic Plan requires the establishment of a Montana-wide interoperable communications public safety system. To that end, Montana Consortia directors formed the Interoperability Montana (IM) Project through a Memorandum of Understanding signed on November 14, 2005.

The nine consortia (I-15/I-90, Big Sky 11, Central Montana, Eastern Tier, Northern Tier, South Central Montana, Tri-County, Western Interoperability and Mobile Data Terminal), now with 3 State of Montana agencies (Highway Patrol, Department of Transportation, Department of Natural Resources & Conservation), collectively represent all 56 Montana counties and 7 Indian Nations in addressing their public safety communications needs. Joining the IM Project are multiple partners at the local, state, tribal and federal level.

The IM Project is building on Concept Demonstration Project I (CDP I) and Concept Demonstration Project II (CDP II) to create a system which will seamlessly link voice and data systems used by federal, tribal, state, local and private sector public safety responders.

Figure 7: CDP I Coverage



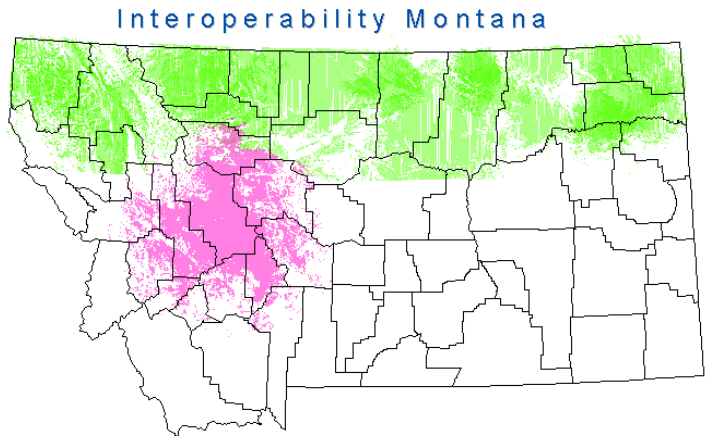
Concept Demonstration Project I

CDP I was completed in Lewis & Clark County and established an 11 site P25 trunked-hybrid Motorola Smartzone system consistent with the SIEC Definition and Technical Requirements.

Concept Demonstration Project II

CDP II is currently under development in the Northern Tier and is scheduled for completion by the fall of 2008. It builds off of the CDP I and links 25 radio sites into the IM system.

Figure 8: CDP I & II Coverage



CDP I and CDP II (when operational) will provide for a single public safety communications system that serves 13 counties and 4 Indian Nations, with radio communications along Montana's 550 mile border with Canada.

Interoperability Montana is a grass roots communications interoperability project developed to provide for the safety of our responders and citizens. Our strategy links single county Concept Demonstration Plan I (CDP I) in Lewis & Clark County with the entire Northern Tier Interoperability Project (CDP II) and continues to extend Interoperability Montana throughout the state.

Narrow Band

The Federal Communications Commission (FCC) has ruled that for public safety agencies operating in the VHF frequency band, all users must operate on narrowband frequencies. The FCC will not allow any further operation on wideband frequencies after January 2013, and no wideband radios will be manufactured after 2009. Part of the IM strategy is to make sure Montana public safety agencies will be able to make the narrow-banding deadlines. Part of the IM plan involves distributing used narrowband radios to small agencies when larger agencies obtain P25 conventional or trunked equipment.

P25 Conventional Narrow Band

The SIEC and IMPD have adopted the P25 standard. All radios purchased by the project have been and will continue to be P25 compliant trunking or future trunking capable. Converting agencies to P25 has the advantage of letting them use the radios in wide and narrowband mode, and in digital or analog. The P25 radios allow compatibility with the IM system and backward compatibility with legacy systems. New conventional radios purchased will be P25 and will also meet the FCC requirements.

Site Upgrades

The development of quality, dependable radio sites is a priority. All the technology in the world will do no good if the radio sites are not secure and dependable. This portion of the plan involves replacing and upgrading existing and new radio site to ensure that local and IM radio coverage is sufficient to meet partner requirements. Improving these sites will include adequate grounding and emergency power, along with the ability to install the trunked radio system and digital microwave equipment. Site upgrades may include towers, generators, electrical supply, shelters, grounding, and supporting equipment.

Microwave Connectivity

Once adequate site upgrades are ensured, digital microwave connectivity will be initiated at improved sites that need trunked radio coverage as designated by individual consortia. Microwave technology was selected because the IM Project is based on a VHF-radio system build-out and coverage requirements include mountain tops and other remote sites that are not served by fiber or other data carriers. Without digital connectivity back to the Master Control Site, full trunking capabilities will not be possible. Microwave or other digital connectivity is also required for expansion of the Mobile Data Network.

Hybrid System

The ultimate target for the IM Project is a statewide trunked/conventional hybrid P25 system available to all local, tribal, state and federal responders in Montana. This goal will involve the narrow banding of all agencies in Montana, move to a P25 infrastructure, establishing quality sites with adequate radio coverage and connectivity with the digital microwave system. P25 trunked infrastructure will be installed on sites selected by the IMPD and connected to the Master Control Site in Helena.

Completion of the IM Project is to be accomplished in a phased approach. Given that total funding for this project is not available at this time, the project will be implemented in a phased approach roughly according to the guidelines above, as set by the IMPD. Several phases may be in process at the same time. The project is designed so that if funding were to stop at any point, interoperability across the state would be advanced and sites upgraded for additional dependability. The project would then resume when funding became available.

2.2 Plan for coordination with neighboring states and Canada.

The IM Project has opened lines of communication with the neighboring states of Idaho, North and South Dakota, Wyoming and with the Canadian provinces of Alberta, British Columbia and Saskatchewan. Over the past year and a half, representatives from each of these neighboring states have visited Montana and given presentations about their radio communications interoperability programs at different IM Project Directors (IMPD) meetings.

A coordination plan is in process with the state of Idaho because Idaho has a need to use the southwestern loop of the IM microwave network to provide connectivity between northern and southern Idaho. This connectivity is not possible within the state of Idaho because of geographic barriers and large stretches of National Forest land. Montana has an Idaho access point at its Sawtell communications site, and plans are to build another one at Look Out pass on the western border. Other interstate partnerships also need to be pursued. North Dakota, South Dakota and Wyoming may be interested in utilizing adjacent portions of the Montana network. Plans may include sharing border sites because ISI links are in place for roaming as necessary and permitted. Dispatch for some western North Dakota communities is currently performed by Eastern Montana towns. These existing partnerships could be expanded.

A Western Border Interoperability Working Group has been underway for the past three years. Membership consists of IM Project Directors, Montana's Public Safety Service Bureau, Montana's U.S. Attorney General's Office, the U.S. Department of Interior, the Royal Canadian Mounted Police (RCMP), Industry Canada and Public Safety Canada from the provinces of Alberta, British Columbia and Saskatchewan, along with public safety providers from Idaho,

North and South Dakota and Wyoming Interoperability projects. The purpose of this working group is to provide a platform for international, federal, tribal, state, provincial, and local coordination of public safety communications and technologies with an emphasis on bordering areas. The Western Border Working Group is providing planning and interface for radio interoperability issues and coordinating among Montanan and Canadian public safety agencies. This working group continues to provide opportunities for networking, dialogue and the establishment of partnerships.

The Province of Alberta, Royal Canadian Mounted Police has offered a future demonstration to the Northern Tier Technical Committee of its ACU1000 interoperable component gateway device that affords temporary patching of radios in different frequency ranges. This would facilitate connectivity between Canadian and United States law enforcement partners. Customs and Border Protection have obtained three units to be staged in the Great Falls, Havre and Whitefish areas.

2.3 Plan for addressing data interoperability in addition to voice interoperability.

Mobile Data Systems that will be needed to provide interoperability and seamless communications for Public Safety Response Agencies to reach the goal of the System is *"no person shall lose his/her life because public safety officials can not communicate"*. The System is needed by each jurisdiction for its day to day activities and during joint responses to common disasters.

One of the strategic initiatives of the Interoperability Montana (IM) Project was the formation of a Mobile Data Terminal (MDT) Consortium made up of the following state and local government jurisdictions; Butte-Silver Bow County, Cascade County, City of Belgrade, City of Bozeman; City of Great Falls; City of Helena; Gallatin County; Lewis & Clark County, Montana Highway Patrol and Yellowstone County. The purpose of the board is to manage, operate and maintain a multi-county mobile data communications system.

The MDT Consortium is being built out statewide on the backbone. Currently, the Interoperability Montana Technical Committee (IMTC) is exploring what spectrum (UHF vs. 700 MHz) would ultimately serve Montana best. In addition, the MDT Consortium is allowingw local, state, tribal and federal enforcement agencies and emergency response personnel to receive mobile data communications services.

2.4 Strategy for addressing catastrophic loss of communications assets by developing redundancies in the communications interoperability plan.

The statewide radio network must integrate the needs of the nine local Consortia that make up the Interoperability Montana Project Directors (IMPD), the Air Force, the National Guard (MTNG), the FBI, the Montana Department of Transportation (MDoT), the Montana Highway Patrol (MHP), and the Montana Department of Natural Resources (DNRC). To calculate the backbone capacity, the needs of the individual sites must be identified. Capacity needs are dictated by trunked site locations, which of the IM partners will use a given site, the capacity requirement for each partner, and the backhaul endpoint for each partner's traffic.

Once the needs of the individual sites are known then the backbone is designed to meet those needs. The initial vision for the state wide microwave backbone was a single large ring with the Master Control Site based in Helena. It was decided to place a 2nd Master Control Site in Eastern Montana. This site will reduce the T-1 capacity required for Helena.

Rings will improve system resiliency by creating redundant paths for system traffic. Although the large state wide ring proved to be too bandwidth intensive, the IM Backbone Design Team was able to form smaller regional rings. These rings provide redundant paths for the traffic in their region without incurring the large backhaul penalty of the state wide ring. The design team created regional rings where applicable. All sites, even those protected by a ring, will utilize hot standby equipment as an additional measure of redundancy.

Included in the redundancies of the backbone network plan are

- Link Redundancy: Some partners have requested redundant T-1 links. The redundancy will protect against the loss of a link within the system.
- Equipment Redundancy (Hot Standby): All sites will be equipped with a secondary transmitter and receiver that will automatically switch in the event of a failure. This hot standby technology protects against the loss of data feeds..
- Path Redundancy: Some sites are part of a regional ring. These rings will protect against the loss of an entire site by providing an alternate route for the affected traffic. Other communications mediums may be available to complete rings and/or augment the microwave system. For example: an agreement has been signed with use BNSF Railway to use its fiber optic cable through Glacier National Park to complete a northwestern ring that connects Big Mountain and Divide Mountain.

2.5 Plan compliance with the National Incident Management System (NIMS) and the National Response Plan.

Montana's Statewide Communications Interoperability Plan (SCIP) complies with the National Incident Management System (NIMS) and the National Response Plan. When a major incident occurs, assistance may be needed from other jurisdictions, tribes, the state or federal government.

Montana's 2005 Mutual Aid Handbook adopts Incident Command System (ICS) conventions and outlines plans for pre-planning, basic interagency operations and inter-discipline operations. The handbook provides a consistent template for local, state, tribal and federal local governments as well as private sector and non-governmental organizations to work together effectively and efficiently to prepare for, prevent, respond to and recover from domestic incidents. It provides a comprehensive all-hazards approach to incident management that stresses preparedness, mutual aid and resource management. Please see Appendix E for the 2005 Mutual Aid Handbook.

2.6 Strategy that addresses communications interoperability with the safety and security elements of the major transit systems, intercity bus service providers, ports, and passenger rail operations within the state.

Montana's transit systems utilize Montana's Mutual Aid system to communicate during emergencies. Transit emergency procedures are coordinated at the local level with public safety officials through their Local Emergency Planning Committees (LEPC) or Tribal Emergency

Response Committees (TERC). The only passenger rail service in the state, Amtrak, as well as city bus providers, all rely on the State's Mutual Aid system for emergency response communications procedures.

Montana Rail Link presented emergency response training tours to local public safety officials in eight locations during the fall of 2006. In addition, the State of Montana signed a letter of intent in July, 2007 to enter into a five-year agreement with the BNSF Railway, which operates a major railroad network throughout Montana and within two Canadian provinces, to provide telecommunications services to state and county agencies. The purpose of this agreement was to partner with the Northern Tier Interoperability Consortium (NTIC) and the Interoperability Montana (IM) Project in an effort to provide improved public safety communications in the northern sections of Montana. The partnership involves supplying towers, generators and equipment shelters at sites in Lincoln County and on U.S. Highway 2 below Glacier National Park. This partnership will greatly improve radio communications coverage on the long stretch of roadway below Glacier National Park that currently does not have reliable coverage. This stretch of highway is a major concern for local, state, tribal and federal public safety officials.

2.7 Periodic review and revision of the state plan.

Establishing Priorities

To establish priorities and to review and revise the state plan for interoperability the Interoperability Montana Project Directors (IMPD) will continue to use consortium assessments, the State Agency Needs Assessments, and information collected from partners around the state.

This review and revision process will take place every three years with ongoing assessments performed by the local consortiums.

Currently, the Interoperability Montana Technical Committee (IMTC) has set priorities based on the business cases presented in each consortium or across multiple consortia. The technical and performance merits of each business case are discussed in the IMTC, with documentation collected and analyzed. The IMTC then votes to approve priorities, and sends these recommendations to the IMPD. The IMPD either approves or modifies the recommendations and votes to apply appropriate funding to a project.

These priorities and business cases are analyzed on a continual basis based on the changing project environment. The IMPD has the opportunity to move various projects up and down the priority list according to funding changes, partnership opportunities and business environment changes.

3. Methodology

3.1 Method by which multi-jurisdictional, multi-disciplinary input was provided from all regions of the state into the Plan.

Interoperability communications needs assessments were conducted at both the regional/consortium and statewide level to focus on interoperable communications and emergency communications network issues and discussion about solutions. Participating in developing the local consortium projects and Statewide Plan were representatives from various jurisdictions.

1. Local Law Enforcement Agencies
    - A. County Sheriffs
    - B. City Police Departments
    - C. Tribal Law Enforcement
2. Local Public Safety/Emergency Responders
    - A. EMS (public and private)
    - B. City Fire Departments
    - C. Rural and/or Volunteer Fire Departments
    - D. Search and Rescue Teams
    - E. Airport Security
    - F. Jurisdiction-level DES
3. Public Works
4. Juvenile Probation (District Courts)
5. Jurisdiction Public Health Reps.
6. Local Sanitarians
7. County Commissioners
8. Public Utilities (electricity, gas)
9. Broadcast Radio Stations
10. Coroners
11. Amateur Radio Operators
12. Railroad
13. Civil Air Patrol
14. Schools
15. Radio Shops
16. BIA

Multi-County Level

1. District DES
2. Drug Task Forces
3. DUI Task Forces
4. Adult Parole & Probation Regional Administrators (Dept. of Corrections)

State Level

1. Montana Army National Guard (Military Affairs)
2. Montana State-level DES
3. Montana Department of Justice
    - Highway Patrol
    - Criminal Investigations Bureau
    - Narcotics Investigation Bureau
    - Fire Prevention & Investigations Bureau
4. Montana Department of Transportation (including District Administrator)
5. DPHHS Public Health
6. Montana Department of Fish, Wildlife and Parks
7. Montana Department of Corrections
8. Montana Department of Livestock
9. Montana Department of Environmental Quality

Federal/International Level

1. Customs
2. US DOT
3. Red Cross
4. DEA
5. INS
6. FBI
7. US Marshals Service
8. US Probation
9. BLM
10. Border Patrol
11. US Forest Service

12. US National Parks Service

13. FEMA

14. Canada

Working collaboratively within the consortium and with others throughout the state has brought about the most effective plan, design and implementation of a system not only for individual consortia but also for other consortia and the state and region as a whole.

During the needs assessment phase various jurisdiction representatives, Project Directors and representatives from Project Management met face-to-face with as many of the jurisdiction stakeholders as was possible. Prior to the meeting with the Project Manager, all identified jurisdiction stakeholders were given a questionnaire to fill out. During these meetings, stakeholders were asked to describe their most pressing issues. Follow up meetings were held in each jurisdiction near the end of the project to present some of the findings for the design strategy, preliminary design, and coverage maps.

Materials Provided to Jurisdiction Representatives

Questionnaires

Questionnaires were provided to stakeholders throughout the consortium.

Site Surveys

Site surveys were performed by local individuals in each jurisdiction. These surveys were not exhaustive, but they provided enough information to conduct the preliminary design.

Letters of Support Template

Each primary jurisdiction and tribal contact was provided a template for a letter of support.

This template was to be filled out by various agencies in an area to demonstrate support for the project. These letters were then intended to be used in grant proposals.

Non-Jurisdiction Stakeholders

In addition to stakeholders within the counties, several state, tribal or federal stakeholders were contacted as well. In many emergencies, such as a forest of grassland fire, communication with these non-jurisdiction stakeholders is extremely critical.

The recommendations and strategy described in developing the consortia projects and statewide plan are intended to be in alignment with the Statewide Interoperability Executive Council (SIEC) definition of interoperable communications.

Interoperability refers to the ability of public safety emergency responders to work seamlessly with other systems or products without any special effort. Wireless communications interoperability specifically refers to the ability of public safety officials to share information via voice and data signals on demand, in real time and when needed.

The SIEC, the Interoperability Montana Projects Directors (IMPD) and local consortia project members worked in conjunction to provide input into this Statewide Communications

Interoperability Plan. The key to its success in representing multi-jurisdictions and multi-disciplines was the ability to build on an existing interoperability structure and organization that has been developing in Montana over the past three years.

Please see Appendix F for the Interoperability Montana Consortia Needs Assessments.

3.2 Process for continuing to have local input and for building local support of the plan

Coordination with Ongoing Initiatives

Montana has three levels of ongoing activities related to interoperability. These include:

1. The Statewide Interoperability Executive Council (SIEC), which is responsible for advising and setting policy on a statewide basis;
2. The Interoperability Montana Project Directors (IMPD), which approves project direction and initiates project development;
3. The nine (9) regional consortia, which represent local and tribal jurisdictions that assess needs and implement new projects.

The Interoperability Montana Project is comprised of members from each one of these groups. As such, ongoing coordination and communication is conducted on a regular basis, including collecting data and presenting results. Because this interdisciplinary team will continue working on policy and implementation approaches for the Statewide Communications Interoperability Plan (SCIP) , a very close working relationship with the IMPD and SIEC is anticipated. In fact, some representatives serve on both boards. During the planning process, all consortia were apprised of SCIP activities and given opportunities for input. This initiatives will be continued on an on-going basis, including the opportunity to provide feedback to the IMPD on a regular basis. Updates will be provided during regularly scheduled meetings and via electronic means.

As part of the communications strategy, team progress and drafts were made available to non-team members through the SIEC and IM Project web pages, to inform other parties interested in interoperability issues and to solicit comments.

With such an ambitious project, maintaining momentum and focus on team goals will be critical. Montana has an advantage in this process due to several factors. First, the State of Montana is already organized into groups that facilitate working with the interdisciplinary team, including the SIEC, IMPD, regional consortia and local response organizations. These groups have a positive history of interaction and cooperation. Secondly, Montana's approach is grassroots, meaning that leadership comes from the local level. This has facilitated buy-in on the local, state, tribal and Federal level and these groups are working together. Great concern and focus exists for developing standard interoperability policies and governance across the state. Additionally, this issue has the attention and the support of the Governor's office and members of the State Legislature.

Montana is committed to SCIP on a local and state level. Currently, key state agencies including Department of Administration; Department of Public Health and Human Services; Department of Transportation, Disaster and Emergency Services; Fish, Wildlife and Parks; Highway Patrol; and the Montana National Guard have all contributed staff time on this Plan. This cooperation

will continue during and beyond the current scope. More importantly, local representatives on the SIEC, IMPD and consortia have also committed substantial time and resources to this effort. This commitment is expected to continue. The State of Montana also has access to consultants who are involved in developing regional assessments and are being used to assist with statewide project management.

Staff support will be from the Department of Administration, primarily the Information Technology Services Division's Public Safety Service Bureau. Other state and local representatives on the team may be utilized from time to time to complete specialized tasks, and have been incorporated into this approach. Contracted services are being used to for project management, printing services and public education.

Commitment from local, state and tribal agencies as well as the use of contracted resources will ensure a process that the SCIP will continue in the most efficient manner.

3.3 TICP incorporated into the statewide plan

Montana's Tactical Interoperable Communications Plan (TICP) pertained only to the Yellowstone County area because the Communications Sub-Committee of the Local Emergency Planning Committee (LEPC) in Yellowstone County was the lead that participated in the Tactical Interoperable Communications Plan (TICP) process. The Yellowstone County area includes the cities of Billings, Broadview, and Laurel. Yellowstone County's Disaster and Emergency Services (DES). provided most of the coordination for the development and implementation of the TICP.

DES Sections

Montana DES is made up of four Sections and three Branches, as follows:

- Finance/Administrative Section
- Logistics Section
- Planning Section
- Operations Section
  - Recovery Branch
  - Response Branch
  - Field Services Branch, consisting of Six District Representatives (District 5 serves Yellowstone County)

Specifically, the plan is intended to be used by the first responder disciplines that would respond to the scene of an emergency, as well as other disciplines that would need to be coordinated with during the response. Thus, the agencies involved are the following within the borders of Yellowstone County:

Local Agencies

Yellowstone County Disaster Emergency and Services (DES)

Yellowstone County/City Health Department

Yellowstone County Public Works

Yellowstone County Rural Fire Departments

Lockwood Fire Department

City of Billings Fire Department

City of Billings Communications Center

City of Billings Public Works Department

American Medical Response (private)

City of Laurel Fire Department

City of Laurel Dispatch Center

City of Laurel Ambulance

City of Laurel Public Works

State of Montana Agencies

Montana Highway Patrol

Montana National Guard

Department of Natural Resources and Conservation

Montana DES

Federal Agencies

Bureau of Indian Affairs

Bureau of Land Management

Federal Bureau of Investigations

US Marshals Service

Bureau of Alcohol, Tobacco, and Firearms

Indian Nations

Crow Nation

The Billings and Laurel Police Departments and the Yellowstone County Sheriff's Office provide law enforcement activities within their respective cities and throughout the county. The Montana Highway Patrol provides traffic safety law enforcement activities throughout the county. All of the law enforcement agencies participate in mutual aid, and they train and exercise together.

The Billings, Laurel, and Lockwood Fire Departments and the County Rural Fire Departments provide fire service activities within their respective cities and throughout the county. The fire departments participate in mutual aid, train and exercise together.

Emergency Medical Services (EMS) is provided by several of the rural fire departments and also by the City of Laurel and the private ambulance service of American Medical Response.,City/County Health and two health care/hospitals facilities work together to provide prevention, detection, and response to health care incidents. The three Public Works Departments in the City/County frequently coordinate with public health and law enforcement to ensure site security and health standards.

State and Federal agencies support local response entities with their planning, preparedness, mitigation, and response to emergencies or disasters. The working group responsible for identifying, developing, and overseeing technical solutions is the established Interoperability Montana Technical Committee (IMTC). IMTC membership consists of local, state, tribal and federal communications experts throughout the State of Montana.

The Big Sky 11 Consortium includes City of Billings and Yellowstone County representatives. The City of Billings and Yellowstone County are working to replace legacy technologies that have presented a barrier to interoperability in the past. In addition, city and county officials are becoming more educated about interoperability issues, and are taking a more active role in consortium activities.

3.4 Implementation of all components of the statewide plan.

Governance and Technical Review

The Statewide Interoperability Executive Council (SIEC)

The SIEC is comprised of local, tribal, state, federal, and other public service agency representatives. Its purpose is to provide policy-level direction for matters related to planning, designing and implementing guidelines, best practices, and standard approaches to solve Montana's public safety communications interoperability problems and to leverage any opportunity in support of a statewide system, including seeking federal funding, or other funding, for statewide interoperability. Sharing of a common radio infrastructure will eliminate duplications of capital investment projects reducing total radio communications cost for each participating agency.

Interoperability Montana Project Directors (IMPD)

The IM Project Directors of the nine consortia throughout the state plus the three state agencies will provide project definition and oversight. The directors wholly represent the local communications needs of their communities and work together to collaboratively build a shared system designed to improve the safety of their residents and the responders who serve them.

Interoperability Montana Governance Committee (IMGC)

The IMGC is tasked with developing strategies for implementing long term governance and maintenance solutions for the IM Project. The IMGC is made of representatives from the IMPD, Public Safety Services Bureau, the Governor's Office and other agencies.

The IMGC is teaming with the Montana State University's Local Government Center to develop and foster strategies for continued long-term governance and maintenance issues.

Interoperability Montana Technical Committee (IMTC)

The IMTC serves an important role in evaluating technology, determining technical specifications for equipment and sites, assessing communications sites, identifying frequencies, ensuring compliance with P25 standards, and addressing encryption and bandwidth issues. The IMTC formulated technical criteria that have been used to prepare a prioritized list of infrastructure projects, which the IMPD has adopted.

Ultimately, the IM Project will provide advanced channel management for the shared use of frequencies, seamless roaming, and enhanced responder safety through embedded signaling, while at the same time enhancing interoperable communications with existing legacy VHF radios. This approach will allow public safety responders in Montana to exchange voice and data communications on demand and in real time during emergencies and disasters.

This expert group consists of representatives from each consortium and meets monthly via telephone conference and conducts monthly face-to-face meetings.

Partnership Agreements and Memoranda of Understanding

The Interoperability Montana Project has developed a number of important agreements and Memoranda of Understanding (MOU) at multiple levels to ensure the project moves forward in a best practice methodology. These agreements are kept in the project file currently managed by the Project Management and include:

- Consortium Memorandum of Understanding: Agreements that formed the consortia and Board of Project Directors, signed by local agencies.
- Memorandum of Partnership Agreement: MOA that defines the responsibility and participation by partners, including the State of Montana, IMPD, U.S. Air Force and National Guard.
- Memorandum of Agreement (State of Montana and U.S. Department of Interior): An agreement that allows IM system sharing with DOI agents and the sharing of DOI radio sites and frequencies.
- BNSF Railways Agreements (Northern Tier, IMPD and State of Montana): Agreements that allow for digital backbone sharing and radio site co-location.
- Site Use Agreement: The document that outlines the rights and responsibilities of radio users at a particular site.
- Site Lease Agreement: The document that legally defines the term of leases for land, shelters and towers for the project.
- Equipment Acceptance Agreement: The document that local, state or tribal officials sign accepting ownership of the equipment purchased with Homeland Security money and guarantees use by the IM project.

- Interlocal Agreement (ILA): Montana's Interlocal Cooperation Act (Title 7, Chapter 11, Part 1, Montana Code Annotated) permits local governmental units, such as municipalities, counties, or any agency or department of the state of Montana, to formally agree to cooperate with other local governmental units on the basis of mutual advantage to provide services and/or facilities. Montana's nine consortia are in the process of signing ILAs that will establish the authority and participation of local jurisdictions in the IM Project. It is expected that all ILAs will be sign and filled with County Clerk and Recorders by the end of 2007.
- Memorandum of Understanding: This MOU ties all the consortia and other state entities together to provide the IMPD with the legal authority to conduct business within the State of Montana. A draft of the MOU is currently being reviewed by the IMPD, and will be voted on for approval at the Dec. 4 IMPD meeting.

PSIC and Statewide Planning

Montana's SCIP is currently being developed through a combined effort of the Interoperability Montana Project Directors (IMPD), contracted support through Northrop Grumman and Montana State University, and State of Montana agencies. This effort is being monitored and reviewed by the SAA for grant compliance. The IMPD has reviewed and approved the SCIP and has been kept apprised of PSIC Grant Investment Justifications to ensure they meet SCIP criteria.

Recommendations made by the IMPD are consistent with the "Definition of Interoperability" as approved by the State Interoperable Executive Council (SIEC) and are consistent with goals established in the SCIP.

After evaluation by the IMTC and approval by the IMPD, the project is placed on a priority list and given to the SAA to ensure that it meets the requirements of the PSIC grant and Montana's SCIP. The IM Project will then work in cooperation with the SAA to implement the project in the most efficient way possible, following grant guidance and requirements and coordinating the activity with other projects. The IMPD has final authority to determine what projects will be funded with PSIC grant funding.

The IMPD formally adopted general priorities for interoperability projects over the next year. The five general priority categories include

1. To build out infrastructure
2. To expand the microwave capacity
3. To complete projects that have been started
4. To populate existing sites with trunking equipment
5. Examine the TICP (Tactical Interoperable Communications Plan) recommendations for Billings and develop a strategy and a plan for addressing the recommendations.

Each of these priorities is designed to lay the foundation for effective interoperable backbone technologies that will facilitate digital voice and data communications that are consistent across Montana. In addition, these priorities are consistent with SAFECOM "Recommended Federal Grant Guidance, Public Safety Communications and Interoperability Grants, FY 2007."

Additionally, these priorities meet specific PSIC grant initiatives and concepts. They include:

- Use of Advanced Technology;
- Spectrum Efficiency;
- Cost Effective Solutions;
- Future Interface and Use of 700 MHz spectrum.

The Interoperability Montana Project has identified three primary projects for PSIC grant use, which are outlined in detail in Section 11 of Montana's SCIP as well as in the PSIC Grant Investment Justifications. These projects meet the priorities established by the IMPD and meet PSIC grant requirements.

The target projects include:

1. Digital Microwave Backbone Connectivity – Helena to Billings: This project addresses the needs for digital connectivity between the state capital in Helena (a key radio/data control site) to Billings, Montana, the state's largest urban area. This project connects microwave in the Northern Tier Project with existing microwave in the South Central Consortium in southern Montana. This project impacts three regional consortia and the urban area of Billings and Yellowstone County. The project will involve building five communications sites and ten microwave hops (A microwave 'hop' refers to the connectivity of digital microwave between two tower locations or a tower and endpoint). Once reliable sites are established and digital connections made, the IM project, along with individual local, tribal and state agencies can connect to each other for greater interoperability and reliable information flow.
2. Digital Microwave Backbone Southwest Loop: This project will address interoperability connectivity needs in I 15/90 Corridor and the South-Central Interoperability Consortia. This infrastructure development and digital microwave installation will connect the Master Control Site in Helena to Butte, Bozeman and southwest regions of the state. The loop will provide interface with the Idaho system near Interstate 15. The project is estimated to involve nine site upgrades, thirteen microwave hops and future 700 MHz interoperability repeaters at the Idaho border connected into the loop.
3. Strategic Technology Reserve (STR): This project addresses investing in pre-deployment equipment, such as portable generators, towers, and repeaters that could be rapidly set up in the event of a disaster. In addition, Montana has requested a partial waiver of STR funds to be used to purchase two emergency spare kits for the state's two Master Controllers and three radio and microwave site rapid response maintenance packs.

4. Governance

4.1 Executive or legislative authority for the governing body of the interoperability effort.

The State of Montana's Homeland Security Strategic Plan calls for the establishment of a Montana-wide interoperable communications public safety system. By Executive Order 12-04, Governor Martz established the Statewide Interoperability Executive Council (SIEC) which replaced the Montana Public Safety Communications Council for strategic level interoperability policy and coordination. In November 2004 Governor Martz also signed Executive Order 19-04 to adopt APCO Project P25 as a standard for Montana. In August 2005 the SIEC adopted a formal definition of interoperability and technical requirements.

On May 24, 2005 the Interoperability Montana Projects Directors (IMPD) Board was formed to establish and conduct interoperability programs at the operational level and was composed of Project Directors from the nine consortiums organized throughout the state.

Governor Schweitzer continued the SIEC by Executive Order 38-06[1] on September 7, 2006 with the appointment of 10 voting and 9 ex officio members. See Appendix G for current membership. The Interoperability Montana Project Directors (IMPD), under authority of the SIEC, is continuing as the operational entity moving forward with planning and implementation of interoperable communications in Montana.

The Senior Advisory Committee (SAC) provides input to the State Administrative Agency (SAA) on Department of Homeland Security (DHS) grants and recommends priorities for funding. The SAC, like the SIEC, works closely with the IMPD. These inter-relationships provide for a fully integrated implementation approach on technology, operations and funding. Multiple agencies and interest groups are represented on the SAC.

4.2 Governance structure that will oversee development and implementation of the plan.

Montana's interoperability governance structure consists of eight regional consortia and one mobile data consortium made up of representatives from Montana's 56 counties and 7 Indian Nations. A Memorandum of Understanding was signed in November 2005 to form the Interoperability Montana Project (IM).

The nine consortia (I-15-90 Corridor, Big Sky 11, Central Montana, Eastern Tier, Northern Tier, South Central Montana, Tri-County and the Western Interoperability Consortium. Mobile Data Terminal), now with 3 State of Montana agencies (Highway Patrol, Department of Transportation, Department of Natural Resources and Conservation) are addressing public safety communications needs for planning and infrastructure development. Joining the IM Project are multiple partners at the local, state, tribal and Federal level.

The IM Project is led by the Interoperable Montana Project Directors (IMPD), represented by each consortium that develops project goals, establishes priorities and implements the project

[1] Available online at http://governor.mt.gov/eo/EO-38_Statewide_Interoperability_Council.pdf.

based on those priorities. In November of 2006, three State of Montana agencies were added to the IMPD (Transportation, Highway Patrol and Natural Resources and Conservation).

To assist the IMPD, Northrop Grumman Corporation, through the Master Information Services (MIS) contract, provides Project Management services.

The Statewide Interoperability Executive Council (SIEC)

The SIEC is comprised of local, state, tribal, federal, and other public safety agency representatives. Its purpose is to provide policy-level direction for matters related to planning, designing and implementing guidelines, best practices, and standard approaches to solve Montana's public safety communications interoperability problems and to leverage any opportunity in support of a statewide system, including seeking federal funding, or other funding, for statewide interoperability. Sharing of a common radio infrastructure eliminates duplications of capital investment projects reducing total radio communications cost for each participating agency. To that end it shall:

- Establish a joint approach to wireless interoperability among public safety entities within Montana;
- Exercise authority for strategic decision-making with regard to Montana's public safety communications by:
- Research and evaluate best practices;
- Develop recommendations for statewide standards;
- Foster coordination and cooperation among agencies;
- Make recommendations to provide statewide assistance;
- Act as an information clearinghouse;
- Serve as a policy point of contact for local; regional, and national and international interoperability matters;
- Develop recommendations for legislation that may be required to further promote interoperability;
- Consider other policy issues related to solving Montana's public safety communications interoperability problems; and
- Explore opportunities for inter-agency and regional systems and develop methods for inter-agency cooperation.

Consortia and Project Directors

The IM Project is a partnership of local, state, tribal and Federal response agencies committed to improving and expanding interoperable communications throughout Montana. The partners are divided into three main categories: 1) Regional Consortia (representing local and tribal interests); 2) State of Montana Agencies (representing all levels of state radio users); 3) Federal and Private Partnerships. These partners have formed nine consortia to deploy the IM Project Montana. Consortium members have elected a project director to represent them on the Interoperability Montana Project Directors (IMPD).

The IMPD represents each consortium and serves as the operational governing board for the IM Project. The IMPD is a dynamic, cohesive group dedicated to the deployment of statewide interoperability for public safety responders. The IMPD provides project definition and oversight, and the directors wholly represent the local communications needs of their communities and work together to collaboratively build a share system designed to improve the safety of their residents and the responders who serve them. This grassroots partnership of local, state, tribal and federal government agencies is dedicated to a strategic deployment of Project 25, digital, secure voice and data communications across the state.

Each of these consortium have agreed to work together to advance the development of interoperable communications infrastructure according to the priorities and funding established by the IMPD. Communications needs not addressed by the IMPD may be developed by the consortia, or individual agencies, as their own priorities and funding allow.

Interoperability Montana Governance Committee (IMGC)

The IM Governance Committee (IMGC) works under the guidance and direction of the IM Project Directors and is charged with defining strategies and developing structures which addresses short and long term governance and maintenance solutions for the IM Project. The Governance Committee is developing a governance to implement a permanent organizational structure to establish authority for a statewide emergency communications system.

The governance structure is establishing a practitioner-driven structure that will ensure a place at the table for all relevant agencies and users. The IMGC is formalizing and ensuring equality in the decision-making (e.g. all members have an equal vote as defined by their level of participation). This structure provides the vehicle through which agencies, local responders and users which are participating in the Interoperability Montana Project plan for and implement an integrated governing organization.

The IMGC is made of representatives from the IMPD, Public Safety Services Bureau, the Governor's Office and other agencies.

Interoperability Montana Technical Committee (IMTC)

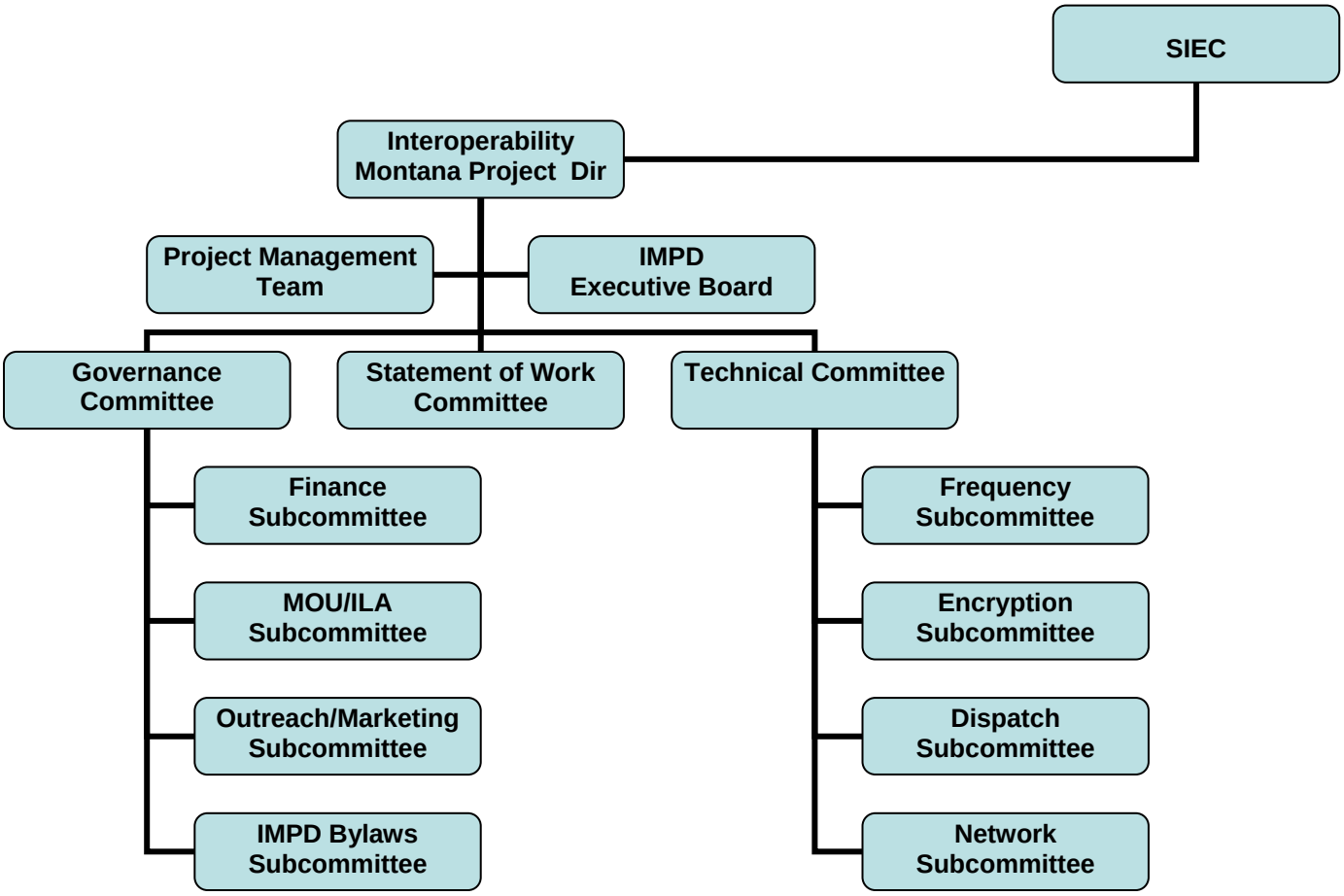
Due to the highly technical nature of radio interoperability communications, the IMTC was formed to make recommendations to the IMPD on technical issues related to the design, implementation and operation of the IM Project.

The IM Technical Committee also works under the guidance and direction of the IM Project Directors and is tasked with design and development of the IM system. The IM system is designed under guidelines provided by the Senior Advisory Committee (SAC) which are:

- All consortia see improvement
- Sites should fill in dead spots that will be located along backbone once completed
- Trunk sites should cover major transportation arteries or population centers
- Sites should have a significant impact on multiple consortia and/or multi-jurisdictions
- The IM should address projects that exceed scope and ability of local/tribal funding

The IMTC serves an important role in evaluating technology, determining technical specifications for equipment and sites, assessing communications sites, identifying frequencies, ensuring compliance with P25 standards, and addressing encryption and bandwidth issues. The IMTC formulated technical criteria that have been used to prepare a prioritized list of infrastructure projects, which the IMPD has adopted.

Figure 9: Governance Structure



4.3 Charter for the governing body, stating the principles, roles, responsibilities, and processes.

A Memorandum of Understanding (MOU) is entered into between local government consortia consisting of Big Sky 11 Interoperability Consortium, Central Montana Interoperability Communications Consortium, Eastern Tier Interoperability Consortium, I-15/90 Corridor Interoperability Communications Consortium, Northern Tier Interoperability Consortium, South Central Montana Interoperability Consortium, Tri-County/Southwestern Interoperability Consortium and Western Interoperability Communications Consortium (Consortia). The Mobile Data Terminal Consortium ("MDT"), and Montana state agencies consisting of Montana Department of Justice (DOJ), Montana Department of Natural Resources & Conservation (DNRC) and Montana Department of Transportation (MDoT) ("State Agencies") for the purpose of creating Interoperability Montana, an association that will coordinate and establish policies and protocol for a state-wide interoperable communications system capable of providing

interoperable wireless voice and data exchange for the entire realm of public safety and emergency management.

Each Consortium has been formed through an interlocal agreement between its member counties and Indian Nations. The interlocal agreements establish the position of Project Director, who is the executive officer for the Consortium and is authorized to represent it as a member of the board for Interoperability Montana.

The Consortia desire to establish an association known as Interoperability Montana, which will have capability to coordinate and oversee a statewide reliable and effective interoperable communications system capable of providing interoperable wireless voice and data exchange for the entire realm of public safety and emergency management, including a response to terrorism, the threat of terrorism and all-hazards.

The Montana Department of Justice, Montana Department of Natural Resources & Conservation, Montana Department of Transportation and MDT each have an interest in the effective operation of Interoperability Montana and are willing to voluntarily participate. Each is desirous of having a representative on the board for Interoperability Montana.

The objective of Interoperability Montana is to establish standards and protocol for the acquisition and operation of public safety radio and wireless communication equipment. This standardization has a goal of creating an interoperability public safety radio communications system in Montana that is a standards-based shared system of systems and is a wide area system for use by public safety responders. This communications interoperability among public safety emergency responders will ensure their radio communication systems will work seamlessly with other systems or products without any special effort. This interoperability approach to communication systems allows public safety responders in Montana to exchange voice and data communications on demand, in real time, during emergencies and disasters.

The parties expect that the standards set by Interoperability Montana will provide advanced channel management for the shared use of frequencies. Seamless roaming throughout the respective trunked areas (footprint), and enhanced responder safety through embedded signaling, while at the same time enhancing interoperable communications with existing legacy VHF radios. For lower levels of interoperability, current mutual aid channels will be maintained and available for use.

Organization of Interoperability Montana

The parties agree to form Interoperability Montana, an association of the parties as its members, which will be controlled by a Board of Directors as set forth herein.

Membership: The Board consists of the Project Manager from each of the eight Consortiia, a designated representative from each of the three State Agencies and one from MDT. Any party may designate in writing an alternate representative who may fulfill the duties of the representative in the absence of the same as defined in the By-Laws Article 3: Membership, Section 3.1.

Terms of Representatives and Alternates: An appointed representative or alternate will serve for the term designated by their individual consortium as defined in the Interoperability Montana By-Laws, Article 3: Membership, Sections 3.1 and 3.2.

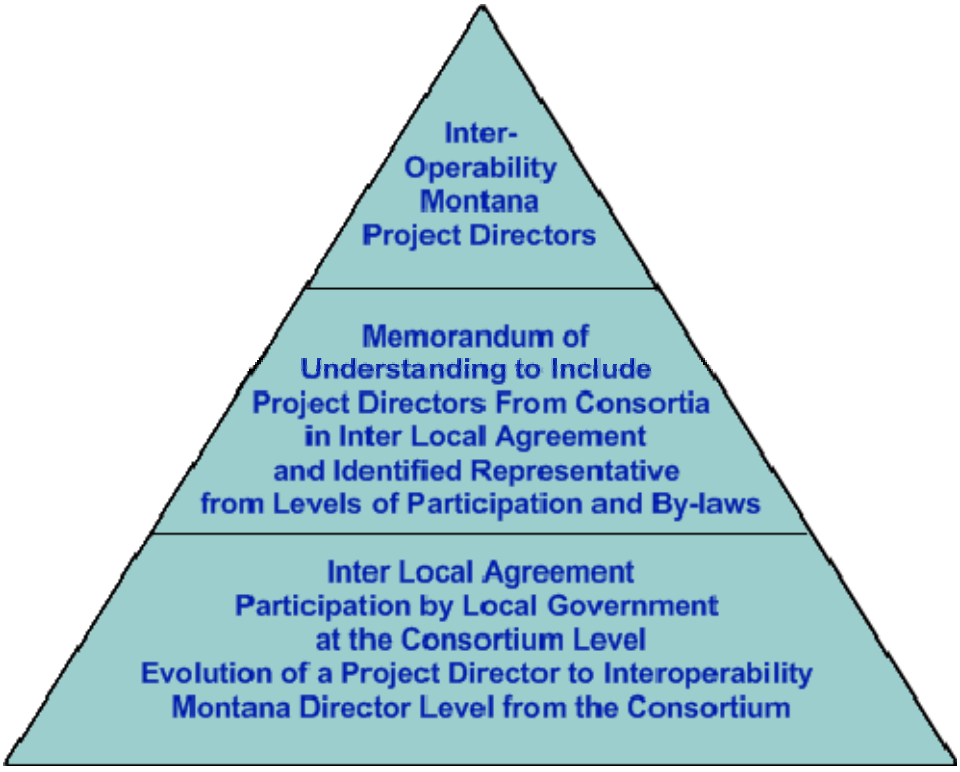
Duties and Authority of Board: To participate in Interoperability Montana and work toward achievement of its vision, mission and goals, the Board shall:

1. Select from its members a Chair, Vice Chair and Secretary Second Vice Chair;
2. Adopt by-laws to govern its internal affairs;
3. Meet at least six (6) times a year or at the call of the Chair or a majority of the Directors using face to face meetings, voice conferencing or video conferencing;
4. Conduct meetings and records of meetings in conformance with Title 2, Chapters 3 and 6, MCA;
5. Arrange for Interoperability Montana, a state agency or a local jurisdiction to hold, secure, and maintain the records of the Board and to provide for administrative and financial support for the Board as it may need;
6. Enter into an agreement or memorandum of understanding with funding sources including, but not limited to, Department of Homeland Security and the Public Safety Interoperability Communications (PSIC) grants to:
    - prioritize interoperability requirements and request government funding;
    - assess regional priority communications interoperability requirements; and
    - make recommendations on the feasibility of methods to develop or implement Montana-wide communications interoperability and local or regional projects; and
7. Establish standards and protocol for the acquisition, maintenance and operation of public safety radio and wireless communications equipment and for seamless roaming throughout the State of Montana and enhanced responder safety through embedded signaling;
8. Assist all Consortia in applying for funding for communication equipment, facilities and technical assistance for interoperability compliance;
9. Provide advanced channel management for the shared use of frequencies licensed during the Interoperability Montana project for trunking and non-trunked systems.
10. Prepare a budget for recommended disbursement of funds authorized through private and public grants and legislative appropriations to members of the Consortia, State Agencies or MDT to create, equip, operate and maintain the state-wide interoperability public safety radio communication system; and
11. Do all things necessary and within the legal authority of the Board to create, equip, operate and maintain a state-wide interoperability communications system.
12. Hire or contract for hire an executive officer and staff to support Interoperability Montana's vision, mission and goals.

Please see Appendix H for a copy of the Memorandum of Understanding between the consortia.

Please see Interoperability Montana Project Directors By-LawsAppendix I for a copy Interoperability Montana Project Directors By-Laws.

Figure 10: Governance Authority Structure



4.4 Members of the governing body and any of its committees.

Interoperability Montana Project Directors (IMPD)

The Interoperability Montana Project Directors (IMPD) is the operational governing board for the Interoperability Montana (IM) Project.

The IMPD is chaired by Sheriff Cheryl Liedle of Lewis and Clark County. Three members of the the IMPD make up the Executive Board who are authorized to make decisions and take action in between IMPD monthly meetings. The Project Management Team is currently filled by Northrop Grumman Corporation. The links below will take you to web sites for all the IM Project Consortia sites.

Please see Appendix J for the membership of the IMPD and its subcommittees.

IM Governance Committee

The Interoperability Montana Governance Committee (IMGC) was formed in August, 2006 to address short- and long-term best practices and governance needs. This committee is recommending legal, policy and administrative structures for the Interoperability Montana (IM) Project. A goal of the IMGC is to create a vehicle by which agencies, stakeholders and users participating in the IM Project can plan for an integrated system of management and implementation. Additionally, the committee wants to ensure a place at the table for relevant agencies and users that formalizes and strives for equality in decision making.

The committee embraces a locally-led governance approach that is dynamic and flexible, yet able to operate with formalized rules and procedures. The approach will emphasize cost effectiveness with balanced participation and funding streams.

Committee members want to ensure that the process maintains a grassroots approach while moving successfully towards a completed system that is adequately funded and provides solid training, operating procedures, business practices and resources to its users.

This professional group consists of representatives from each consortium and meets monthly prior to the Interoperability Montana Project Directors (IMPD) meetings. The committee is chaired by William Fleiner, State of Montana Department of Corrections.

Please see Appendix K for the membership of the IMGC.

IM Finance Sub-Committee

The IM Finance Sub-Committee was appointed in February 2007. This group is investigating continuous funding mechanisms for on-going maintenance, operations and expansion of the IM Project. This sub-committee has identified goals, potential revenue sources, and is in the process of developing a comprehensive two-year budget for the project that will cover administration, capital investments and improvements, maintenance and operations, radio repair and replacement, technological advances and training and exercises.

IM MOU/ILA Sub-Committee

This sub-committee has worked to draw up the Interlocal Agreement template and answer questions from county commissioners and tribal leaders about the document and its purpose. The sub-committee also has developed the formal Memorandum of Understanding agreement that will unite all the IM consortia and state agencies to establish the legal entity of the IMPD.

IM Outreach/Marketing Sub-Committee

The IM Outreach/Marketing Sub-committee has undertaken five major efforts this year to enhance the public's understanding of the IM Project. The sub-committee developed a "white paper" about the IM Project that was distributed to legislators. It worked with Northrop-Grumman to hold a legislative reception for legislators during the 2007 legislative session. PSSB Bureau Chief Chris Christensen and Montana State University Local Government Center's Director and Associate Director have participated in workshop with the Montana Association of counties (MACo) and the Montana League of cities and Towns (MLCT). A radio communications demonstration was coordinated with the Governor's office during the legislative session to display the capabilities of the Lewis and Clark County radio system. Finally, the sub-committee worked with the MSU Local Government Center to dedicate an entire issue of the Montana Policy Review publication to the subject of interoperability.

IM Bylaws Sub-Committee

The IM by-laws Sub-Committee is charged with suggesting changes and obtaining IMPD approval for any changes to the IMPD bylaws.

IM Technical Committee

The Interoperability Montana Technical Committee (IMTC) was formed to make recommendations to the Interoperability Montana Project Directors (IMPD) on technical issues related to the design, implementation and operation of the IM Project.

The IMTC evaluates technology, determines technical specifications for equipment and sites, assesses communications sites, identifies frequencies, ensures compliance with P25 standards, and addresses encryption and bandwidth issues. The IMTC formulated technical criteria that have been used to prepare a prioritized list of infrastructure projects, which the IMPD has adopted.

This expert group consists of representatives from each consortium and meets weekly via telephone and conducts monthly face-to-face meetings. The committee is chaired by Don Brostrom, Hill County Undersheriff. Four sub-committees report to the IMTC, which are described below. Please see Appendix L for the membership of the IMTC.

IM Frequency Sub-Committee

The Frequency Sub-Committee defines the approach and management of frequency resources necessary for interoperable communications in the State of Montana. It wrote a Frequency Plan that was adopted by the IMPD in August, 2007 and will be continually monitoring and upgrading it.

IM Encryption Sub-Committee

The Encryption Sub-Committee is in charge of developing a plan for encryption of radios throughout the state. It is in the process of educating key decision-makers about the encryption plan.

IM Dispatch Sub-Committee

The Dispatch Sub-Committee held its first meeting in October, 2007 to begin assessing needs for dispatch connectivity to the IM Project.

IM Network Sub-Committee

The Network Sub-Committee has developed the statewide network plan and implementation. This monumental task has involved performing site walks, attending consortia meetings to plan trunk and microwave sites meetings with the Montana National Guard and the U.S. Air Force to ensure that their microwave requirements are met and verifying microwave paths throughout the state. The IMPD adopted the statewide Network Design Plan on Sept., 2007.

IM Statement of Work Committee

The Interoperability Montana Statement of Work (SOW) Committee is determining all the requirements for project in management to the IM Project and the criteria by which potential contractors will be evaluated.

4.5 Meeting schedule for the governing body.

The Statewide Interoperability Executive Council (SIEC) meets on a quarterly basis

The Interoperability Montana Projects Directors (IMPD) meets regularly on the first Tuesday of the month.

The Interoperability Montana Governance Committee (IMGC) and Finance subcommittee of the IMPD meets regularly on the first Monday of the month.

The Interoperability Technical Committee (IMTC) representatives from each consortium and meets bi-monthly via telephone and conducts monthly face-to-face meetings.

Individual consortiums meet on a monthly schedule

Please see Appendix M for hyperlinks to meeting schedules.

4.6 Multi-jurisdictional, multi-disciplinary agreements for decision-making and for sharing resources.

An Interlocal Government Agreement has been entered into by the counties and tribes to establish each regional Interoperability Consortium. The identified nine consortia across the state of Montana will communicate and plan with response entities and government officials for overall interoperable communications within the counties and reservations within their regions. The Consortia agree to form governing boards and establish the position of Project Director, whose duties and responsibilities are set within the Consortia Interlocal Agreements.

A Memorandum of Agreement (MOA) currently exists between the Montana-wide Communications Interoperability Consortium Project Directors for the purpose of setting forth an agreed upon framework to conduct business practices to implement the Montana-wide communications interoperability plan. A revised Memorandum of Understanding (MOU) is currently being reviewed by the IMPD and plans are for it to be signed in December. This MOU will unite the consortia and three state agencies to form the IMPD as a legal entity.

The Governor of Montana approved the State's Homeland Strategic Plan. The plan requires the establishment of a Montana-wide, interoperable communications public safety system. The system objective is to seamlessly link voice and data systems used by Federal, tribal, state, local and private sector public safety responders. The Governor established the Statewide Interoperability Executive Council (SIEC) to provide policy level interoperability directions and coordination under the chair of the Department of Administration.

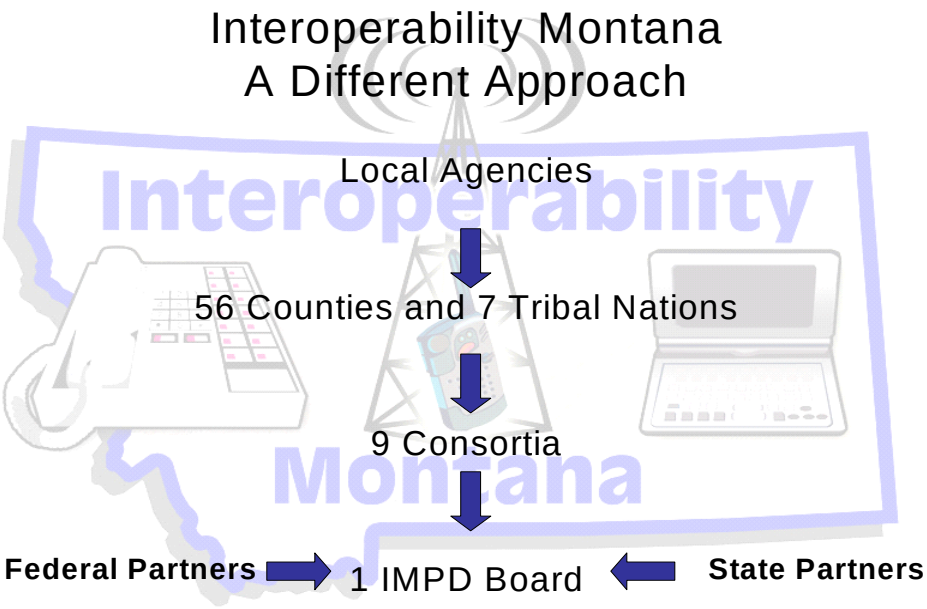
Previous Memorandum of Understanding (MOU) established the organization of eight regional Consortiums and a Mobile Data Terminal group. The Consortium's MOU authorizes assessment and establishment of regional voice and data assets to achieve Montana-wide communications as defined by the SIEC. Each Consortium elects a Project Director to implement regional objectives.

This MOA provides the basis for these nine Project Directors to make decisions to provide for phased implementation of a Montana-wide Communications Interoperability Network.

A Memorandum of Understanding between the Department of the Interior (DOI) and the State of Montana was entered into on October, 2006 for the use of statewide trunking communications systems. The State of Montana has agreed to allow the DOI to use the State's Interoperability Montana system at no cost to the DOI and its agencies. In return the DOI has agreed to let the State of Montana integrate some DOI/National Telecommunications Information Administration (NTIA) assigned frequencies within its system.

Please see Appendix H for copies of and hyperlinks to the Consortia Interlocal Government Agreements, the Memorandum of Understanding with the United States Department of the Interior, and the Memorandum of Understanding with the United States Department of Military Affairs.

Figure 11: Interoperability Montana: A Different Approach



5. Technology

5.1 Statewide capabilities assessment Plan. Use of the Communications Asset Survey and Mapping (CASM) tool

The State of Montana has had statewide mutual aid procedures in place since 1990, and they provide the strategy for using communications resources in the state. Virtually all, if not all., emergency responders in the state have equipment that is capable of talking on all of the current mutual aid channels. These procedures have been updated many times with the latest revision in June 2005. The Montana Mutual Aid and Common Frequencies Manual addresses the state's data and incident management systems and frequencies assignments for each Defined and/or discussed in the Montana Mutual Aid and Common Frequencies Manual addresses the state's data and incident management systems and frequency assignments for each emergency responder organization within the state. Here is a list of topics covered in the manual:

- General Information, including
  - Authorization
  - Priority Use Levels
  - Color Names
  - Communications Protocols
  - Incident Communications Plans
- Procedures for the following disciplines are addressed, including Incident Communications Plans for:
  - Law Enforcement
  - Fire
  - Emergency Medical Services
  - Disaster and Emergency Services
  - Search and Rescue
  - Amateur Radio
- Management and administration of mutual aid and common frequencies
- Appendices, including:
  - Sample ICS-205 Incident Radio Communications Plans
  - State Common Mutual Aid Frequency Plan
  - National Law Enforcement Emergency Frequency Plan
  - State Law Enforcement Mutual Aid Frequency Plan
  - State Tactical Team Coordination Frequency Plan
  - Fire Frequencies Plan
  - EMS Frequencies Plan
  - DES Direction and Control Frequency Plan
  - Search and Rescue Frequencies Plan
  - Montana Policies and Procedures – Law Enforcement Frequencies

- Montana Policies and Procedures – Fire Frequencies
- Selected FCC Codes
- Sample Interagency Agreement
- Montana CTCSS Tone Plan

As the Interoperability Montana project progresses, the Mutual Aid Handbook will be updated with new procedures appropriate to the new technical environment of P25 and trunking. Ultimately; it will serve as the manual for the entire IM system. Inventories of existing communications equipment already have been conducted as part of the consortium needs assessment. This data is in the process of being added to the CASM system. They are currently being used and will be used even more in the future as additional agencies have communications equipment inventoried and entered into CASM. CASM is also being used to analyze the interoperability of agencies through the CASM matrices. Sources of data entered into CASM include:

- Various Consortium Needs Assessments
- State Agency Needs Assessments
- The Missoula As-Built Assessment
- Current Lewis & Clark County Communications Equipment Inventory

5.2 Plans for continuing support of legacy systems, developing interfaces among disparate systems, and migrating to newer technologies.

The Montana Statewide Interoperability Executive Council (SIEC) selected the technical guidelines to be used in the development of Montana's interoperable communications system as follows: "Open standards are required for interoperability and to define the overall architecture of the system. Industry standards for land mobile radio in public safety use have been prepared under the auspices of the Association of Public-Safety Communications Officials (APCO) and the Telecommunications Industry Association (TIA). This set of standards, known as Project 25 or TIA 102-A, has been selected by the cooperative partnership of the SIEC Concept Demonstration Projects."

Following the direction of the SIEC, agencies within the State of Montana initiated the process of moving all major emergency responders to an integrated, Project 25 (P25) trunked-conventional system. Montana's interoperability initiative began as and continues to be a grassroots, ground-up approach. Although state government is heavily involved in the initative, the approach, it is a collaborative effort with local jurisdictions, which include Montana's Indian Nations.

Lewis & Clark County, through Concept Demonstration Project 1 (CDP 1) was the first entity to deploy a P25, interoperable infrastructure and is currently in full use of that system. In all, the 56 counties and seven Indian Nations within the state have formed eight consortia (based on geographic proximity) with the primary purpose of upgrading their emergency response infrastructure to P25 trunking to allow for better cooperation and integration. The twelve counties and four Indian Nations along Montana's northern border with Canada make up the Northern Tier Interoperability Consortium and are currently well into the process of building out their compatible system.

During this process, there is an obvious need to continue to support the existing radio systems for these counties, state and tribal agencies, while providing a smooth path for migration to the new system. To this end, the Interoperability Montana project was created, headed by the Interoperability Montana Project Directors (IMPD). All consortia and several state agencies are participants in the IM project, with each represented on the IMPD.

The system combines P25 trunked and conventional technologies to provide interoperable communications among P25 narrowband digital trunked and existing conventional users. At each trunked Radio Frequency site, one repeater is used for interoperability between trunked P25 subscriber radios and conventional subscriber radios. Because of microwave link availability at these trunked sites, a conventional P25 subscriber can talk directly to dispatch in either analog mode or P25 mode. Interoperability between a P25 conventional or analog subscriber and a P25 trunked subscriber is done through a console patch, set up permanently to an "interoperability talkgroup".

For those agencies wishing to use federal or State of Montana money to purchase communications equipment, all such equipment must be compatible and seamlessly integrate with infrastructure equipment deployed in CDP 1 and CDP 2 (the Northern Tier Interoperability Project). It must operate narrowband in the VHF frequency range and uses a protected high-capacity digital microwave backbone for voice and data interconnect traffic.

The system provides advanced channel management for the shared use of frequencies, seamless roaming throughout the respective trunked areas (footprint) and enhanced responder safety through embedded signaling, while at the same time enhancing interoperable communication with existing legacy VHF radios. At a lower level of interoperability, the existing state mutual aid channels are maintained and available for use.

While all agencies recognize the optimum goal of a trunked system, they will need to migrate to trunking in a stepped or phased approach. With this ultimate goal all agencies will purchase equipment that is trunking capable or upgradeable to trunking. All equipment purchased in the future must be compatible and seamlessly integrate with infrastructure equipment deployed in CDP 1 and CDP2. Progression through these steps will vary in a given time based on operational needs, and ultimately available funding.

This approach allows public safety responders in Montana to exchange voice and data communications on demand, in real time during emergencies and disasters.

Dispatch Centers house the P25 trunked master site equipment as well as the 5-channel trunked RF equipment. Two System Management clients are supplied for System Management functions such as: subscriber/RF infrastructure configuration management, system statistics and reports, system-wide trunked radio traffic usage, and alarm/alert monitoring of the RF infrastructure equipment.

High-Level Transition Plan – From Statewide Needs Assessment

General Recommendations

The following steps were identified to assist state agencies in planning for interoperability:

- Define how the public safety agencies' interests will be represented and coordinated in the IM Project.
- Define the role of PSSB in assisting agencies.
- Continue to track and compare agency needs with consortia improvements, updating needs and opportunities at least once a year.
- Continue to track the activities of the IM Governance Committee. This committee's goal is to meet mandates and accomplish goals that have been set for local and state agency interoperability communications.
- Define the requirements and thresholds for determining how and when agencies should be moved into the interoperability environment (see discussion under Section 0.00. . below).

The following coordination steps were identified to assist state agencies:

- Coordinate requests for infrastructure improvement funding.
- Develop a training program that is available to all agencies but targeted to agencies without ongoing, existing training program.
- Finalize procedures and governance of the statewide re-deployment of surplus radios.
- Standardize requirements for radio purchases that maximize interoperability but allow flexibility for site-specific uses (such as limited, facility-based use).
- Develop a standard site/use agreement that state agencies and consortia can use and implement quickly.
- Develop a teaming agreement format to be used for agencies that are actively participating in IM Projects.

Proposed Transition Plan and Capability Assessment

This assessment has developed an Interoperability Baseline that records the current inventory and capability of participating state agencies; using the information provided by the agencies, the assessment has attempted to define gaps between that baseline and actual interoperability. However, there is still a need to define general functional requirements for interoperability and to get agreement from agencies on these requirements. This process will continue as part of a capability assessment that will explore these needs in more depth using the baseline needs assessment in this report. The capability assessment for each agency will determine when and how the agency will participate in the statewide movement toward interoperability.

Some of these capability assessment needs are specific to each agency but others are related to the overall state system. For example, Highway Patrol capacity needs have been calculated into the capacity plan for the initial rollout of the Northern Tier system, but other agencies will have communication needs that will require adding capacity to the entire statewide system. These demands, and any resources that can be brought to the table to help mitigate these demands, need to be more fully defined in the capability assessment. Administrative aspects of a statewide system will include adding users, setting up talkgroups and getting users on the new system. This will result in additional administrative tasks at the regional and state level, both areas that are currently limited in resources.

The capability assessment is also important to further define state agency system requirements for interoperability. This is definition is critical because state agency involvement in the IM Project differs from agency to agency, and not all agencies are actively planning to use the statewide trunked system.

It was recommended that PSSB and other state agencies identify statewide requirements in the following areas: [2]

- **Dispatch Requirements**: Dispatch requirements are more critical to local and county-level interoperability planning, but dispatch requirements were identified by all or most of Montana state agencies. Dispatch needs included back up for those agencies that do not have dispatch as well as potential impacts on those agencies who do have dispatch (such as MHP) and are providing service to other agencies through informal or formal use agreements. Dispatch needs should be refined and, where access to dispatch is critical to agency services, requirements should be established for access to trunked service areas. Another critical need is statewide dispatch for agencies that do not currently have their own dispatch, such as the Dept. of Livestock and Corrections; additional trunking radios will potentially put pressure on the MHP dispatch if they begin to receive additional calls.
- **Command:** Procedures for handling incidents differ among state agencies; some have very specific and written procedures for both internal and external communications to reflect incident command needs. However, confusion still exists among agencies and as to who should be contacted and when during general emergencies. Incident command requirements should be established and should include all agencies and interface needs.
- **Operational:** Business needs should be identified for both agencies and intra-agency communications. All agencies need to have daily operational procedures in writing and radio users should be trained on these procedures as well as how to use the radios. A long-term budget plan should also be started to reflect overall interoperability needs and to help schedule funding requests for both near and long-terms needs.
- **Tactical:** SIEC and the IM Project are setting technical standards; state agencies should adhere to these standards or have business reasons to justify deviation from standards. Agencies should monitor the statewide use and development of these standards.
- **Support:** Agencies should determine the level and frequency of technical support they need to maintain radio communications. Opportunities for pooled support should be explored. In addition, both administrative and technical support is needed to monitor and participate in IM activities.
- **Organizational:** Governance requirements, both inter and intra-agency, should be identified with the goal of enabling the coordination and planning for interoperability

[2] These requirement categories are recommended by the *Law Enforcement Tech Guide for Communications Interoperability*, USDOJ COPS/SAFECOM, September 2006.

P25 Conventional / Conventional Analog / P25 Trunked Interoperability

Each conventional site will have one (1) P25 conventional repeater to serve P25 conventional subscribers and analog subscribers operating within conventional site coverage areas. The Augusta site will have an existing Quantar upgraded to P25 conventional operation, while solar power sites at Stonewall and Hedges will use new Daniels low-current drain P25 conventional repeaters. Interoperability with P25 trunked subscribers can be achieved by installing one (1) P25 Spectra control station on Sunset Mountain, Belmont, and Hogback trunked sites. Because of microwave link availability at these trunked sites, a conventional P25 subscriber can talk directly to dispatch in either analog mode or P25 mode, through the wire line controlled Spectra control station. Interoperability between a P25 conventional or analog subscriber and a P25 trunked subscriber can be done through a console patch, set up permanently, to an "interoperability talkgroup". In this interoperability mode, the P25 conventional subscriber should talk in analog mode to avoid a double conversion of P25 conventional audio to P25 trunked audio, and vice versa. Double conversion of P25 audio produces significant degradation of audio quality.

Law Enforcement Center (LEC) Dispatch Center

The Lewis & Clark LEC Dispatch Center houses the P25 trunked master site equipment as well as the 5-channel trunked RF equipment. Two System Management clients for System Management functions such as: subscriber / RF infrastructure configuration management, system statistics and reports, system wide trunked radio traffic usage, and alarms / alerts monitoring of the RF infrastructure equipment.

The LEC Dispatch Center has had upgrades performed on its central electronics bank (CEB) and console operator positions required for P25 trunking, P25 conventional, and conventional analog operation. In addition, five (5) new P25 Spectra control stations have been installed so dispatchers can communicate in P25 trunked mode to trunked RF sites that may be in site trunking. These Spectra control stations controlled through base interface modules (BIMs), enabling dispatchers to access them the same way they would access trunking talk groups or conventional base stations. Each Spectra control station is capable of eight (8) modes that are selectable through standard T8-R8 tone remote control function tones. Each mode can be programmed for one of the following modes: a P25 trunked talkgroup, a P25 conventional channel, or an analog conventional channel.

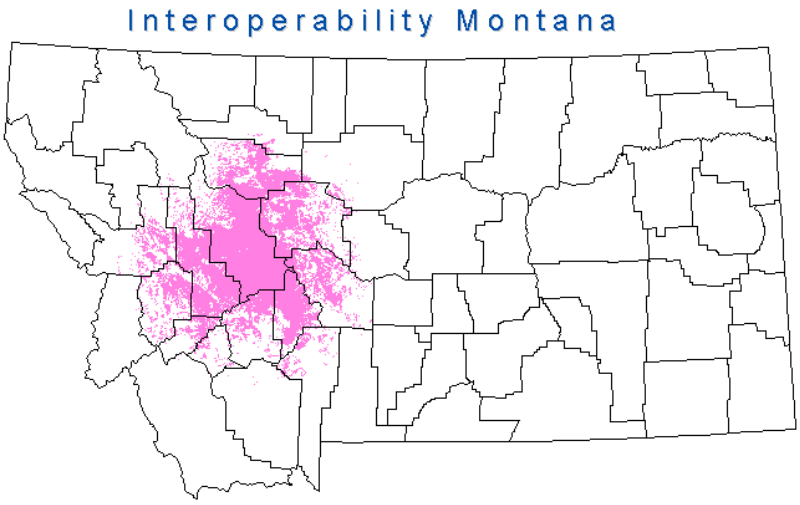
Three (3) DIUs have been interfaced to the CEB to provide P25 conventional and conventional analog operation for dispatch communications to Stonewall, August, and Hedges conventional radio sites, through the Quantar P25 conventional / conventional analog control stations have been installed at Belmont, Sunset, and East Helena sites.

Motorola has provided a UHF Spectra consolette and BIM for communications with the Federal Reserve.

5.2.1 Migration plan for moving from existing technologies to newly procured technologies.

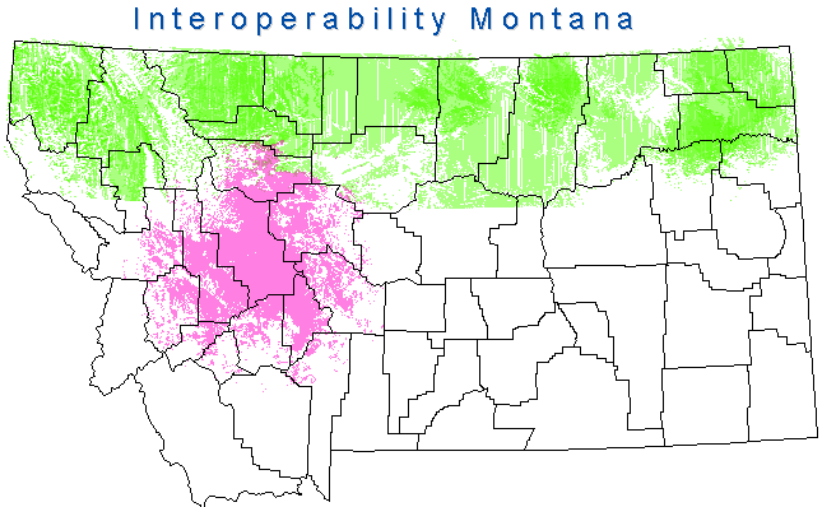
The evolution of the State of Montana Interoperability Communications effort is depicted below:

Figure 12: Interoperability Concept Demonstration Project 1



CDP 1 was completed in Lewis & Clark County and established an eleven-site, P25 trunked-conventional Motorola Smartzone system consistent with the SIEC Definition and Technical Requirements.

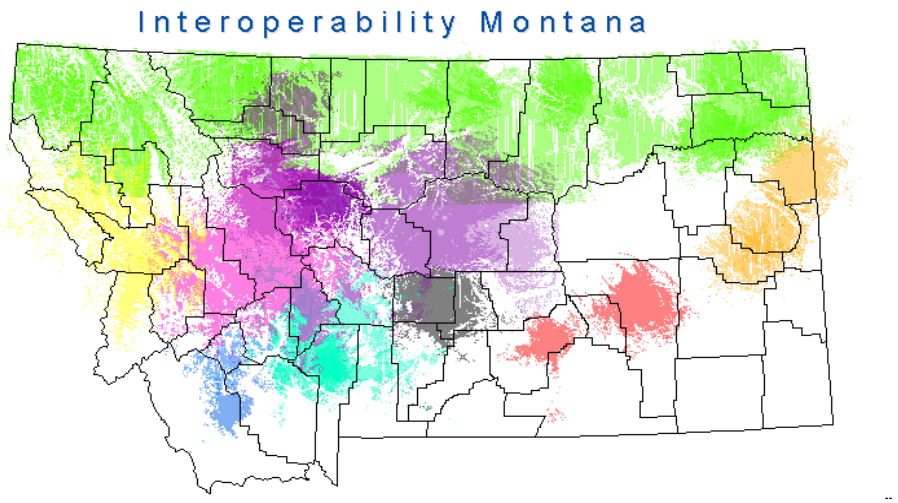
Figure 13: Interoperability Concept Demonstration Projects 1 & 2



CDP 2 is currently under development along the border with Canada and is scheduled for completion in fall 2008, although significant portions of it will be complete and operational by the end of calendar 2007. It builds off of CDP 1 and links twenty-three radio sites into the IM system.

CDP 1 and CDP 2 (when completely operational) will provide a single public safety communications system that serves thirteen counties and four Indian Nations with integrated, interoperable communications along Montana's 550 mile border with Canada.

Figure 14: Final Interoperability Montana Phase 1 Coverage



Currently being planned is the completion of Phase 1 of the IM project, which will close several "rings" of microwave backbone across the state as well as provide new P25 trunked-conventional capabilities for a number of additional counties, tribes, and jurisdictions. This is anticipated to be complete after 2008, but 2008 will see the completion of several important sections. More than 50 percent of Montana will be covered by IM Phase 1.

Over the next year, plans will begin in earnest for Phase 2 of the IM Project, which will build out the State of Montana's interoperable radio system into those counties, Indian Nations, and jurisdictions not covered by Phase 1. In each county and Indian Nation, all emergency responders are slated to be migrated to P25, trunked systems before 2013. The system being rolled out will have an "interop repeater" installed at each trunked location to allow those users still on P25 conventional equipment to migrate to the new system even before they have trunking-capable radios. Over time, more and more trunking-capable subscriber units will be rolled out across the state.

Although the exact details of the Phase 2 plans are not yet known at this time, in general they will follow the existing strategy of the IMPD for approving sites and finding funding. We will do as much as we can with the funding available. The State of Montana has already allocated 8.5 million new dollars for the IM project, and when completed, tower sites will be turned over to an agency (usually the local county or Indian Nation) for maintenance and support. The Montana Highway Patrol has already committed to supporting and maintaining the statewide microwave system.

The timeline for the statewide build-out is as follows:

Fall 2007

- Partial completion of the Northern Tier (Lincoln, Flathead, Glacier, Toole, Liberty, Hill, Blaine, Phillips, Valley, Daniels, Sheridan, and Roosevelt Counties and the Blackfeet, Rocky Boy's, Fort Belknap, and Fort Peck Indian Nations).
- Partial completion of Central Consortium Sites (Pondera, Chouteau, Cascade, Fergus, and Judith Basin Counties).
- Partial completion of the Western Consortium (Sanders, Mineral, Ravalli, Missoula,

and Lake Counties and the Flathead Indian Nation)

- Partial completion of the Eastern Tier (Garfield, Custer, Powder River, Carter, Dawson, Fallon, Wibaux, Richland, Prairie, and McCone Counties).
- Partial completion of the Tri-County Consortium (Powell, Jefferson, and Broadwater Counties).
- Partial completion of the Big Sky 11 Consortium (Yellowstone, Big Horn, Treasure, Petroleum, Rosebud, Stillwater, Musselshell, Carbon, Wheatland, and Golden Valley Counties, and the Crow and Northern Cheyenne Indian Nations).
- Partial completion of the I15-90 Corridor Consortium (Granite, Deer Lodge, Silver Bow, and Beaverhead Counties)
- Partial completion of the South-Central Montana Consortium (Meagher, Sweet Grass, Park, Gallatin, and Madison Counties).

5.2.2 Process to ensure that new purchases comply with the statewide plan.

All counties in the State of Montana and Indian Nations within the geographic boundaries of the State of Montana are members of an Interoperability Consortium, and all consortia are members of the Interoperability Montana (IM) Project. Each consortium has a representative who sits on the Interoperability Montana Project Directors (IMPD) board. As part of the IM Project, each consortium has committed to purchasing only P25, trunking-capable (or upgradeable) equipment in the future. In addition, federal and state funding for interoperable radio equipment is limited to P25-capable or –upgradeable equipment.

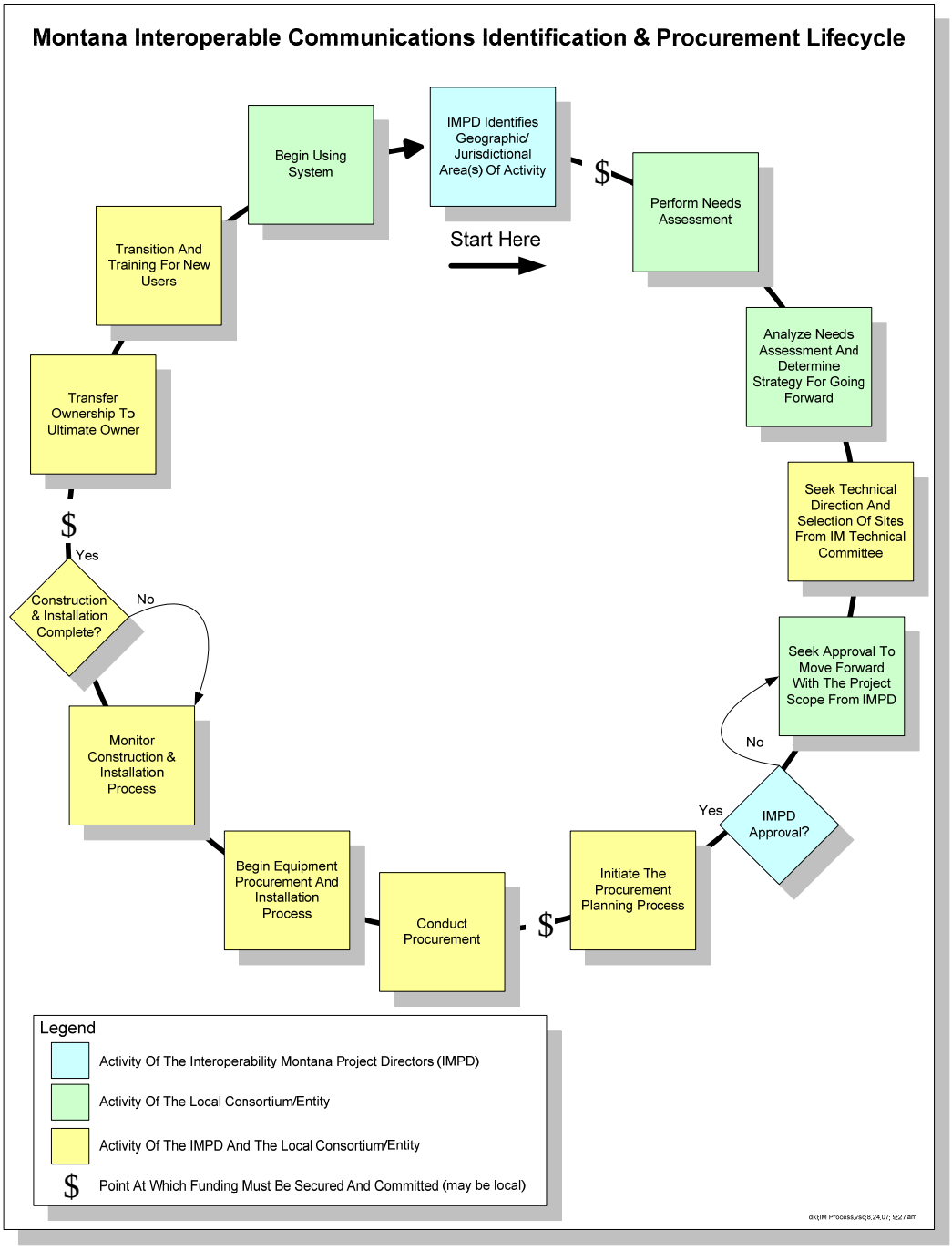
As mentioned in Section 5.2.1, existing conventional equipment will continue to serve its function after migration to the new system through the deployment of interop repeaters that will allow remaining conventional equipment to operate on the new system provided they are P25 compatible.**Figure 15**, next page, graphically depicts the process local entities go through in Montana to receive approval to proceed with communications procurement and deployment when federal or state funds are used

The IMPD, along with the IM Technical Committee (IMTC) is working to ensure the equipment purchased by agencies within the state is compatible and aligned with the SIEC technical guidelines. In the diagram below illustrates that, as consortia make decisions about equipment and radio sites, those decisions are reviewed by the Interoperability Montana Technical Committee (IMTC). The IMTC then issues recommendations to the IMPD concerning equipment to be purchased and tower sites to be constructed.

Availability of funding plays a big part in the communications identification and procurement lifecycle. Funding is needed to conduct needs assessments, pay for personnel, fund construction and purchase equipment. Prior to construction, a pre-award letter is issued which documents the responsibilities of the agency that will receive the equipment after completion of the site. Transfer of ownership for the equipment will be to a local entity, usually a county or Indian Nation, unless the local entity refuses to accept the equipment. This transfer also imposes financial responsibility for maintenance of the equipment to the accepting agency.

If a local entity determines it cannot or does not want to take ownership of a radio site, other counties or Indian Nations are contacted to see if they will accept responsibility for the equipment. If no local entity is found, the equipment is offered to a state agency. Although Montana has not encountered a situation where no agency was willing to accept responsibility for a site, in the event that did occur, the site would not be built and a different location would be selected. Once construction is completed, all the equipment installed, and User Acceptance Testing approved, transfer of the equipment occurs and the accepting agency assumes maintenance responsibility.

Figure 15: IMPD and Local Interaction for Approval to Proceed with Radio Communications Projects



6. Standard Operating Procedures (SOPs)

6.1 Assessment of current local, regional, and state operating procedures.

Current Procedures

The State of Montana's Mutual Aid Handbook was originally written in 1990 and last revised in June 2005. It is NIMS-compliant and will continue to be NIMS-compliant in the future. It forms the baseline for today's interoperability procedures across the state, and will be revised into the new SOPs as regions and agencies become a part of the new system.[3]

Many public safety agencies in the state of Montana have their own internal SOPs. Lewis & Clark County, being the only entity that has thus far brought up their new system, has created a new SOP. These will be used as a baseline for other counties and tribes as their agencies are brought onto the new system. At a high level, its contents include:

1. Summary Of Current Business Practices
2. Summary Of User Groups' Business Practices
   - 2.1 Lewis & Clark County Sheriff
   - 2.2 City of Helena Police
   - 2.3 City of Helena Fire Department
   - 2.4 East Helena Fire
   - 2.5 Rural Fire
   - 2.6 City and County Public Works
   - 2.7 Ambulance
   - 2.8 Montana Highway Patrol
   - 2.9 Dispatch
3. Business Practices Recommendations for the New Radio System
   - 3.1 Overview
   - 3.2 Terminology and Abbreviations
   - 3.3 Trunked System Direct Impact on Operation Functionality
   - 3.4 Hierarchy for Establishment and Elevation of Incidents and System Resources
   - 3.5 Circumstances In Which Radio Traffic May Leave the Trunked System for a Conventional Resource
   - 3.6 Airtime Usage and System Busies
   - 3.7 System Problem Reporting

[3] The full State of Montana Mutual Aid And Common Frequencies Manual can be found on the Montana Public Safety Services Bureau's website at http://pssb.mt.gov/.

4. New System Communications Hierarchy and Protocols For:
    - 4.1 Lewis & Clark County Sheriff
    - 4.2 City of Helena Police Department
    - 4.3 City of Helena Police Department
    - 4.4 City of Helena Fire Department
    - 4.5 East Helena Police Department
    - 4.6 East Helena Fire Department
    - 4.7 Rural Fire Departments
    - 4.8 City & County Public Works
    - 4.9 All EMS Ambulance Services
    - 4.10 Montana Highway Patrol
    - 4.11 Dispatch Operations

Please see Appendix E for the 2005 Montana Mutual Aid Frequencies Handout.

6.2 Process by which the state, regions, and localities will develop, manage, maintain, upgrade, and communicate standard operating procedures (SOPs)

The IMPD, as it evolves, will develop SOPs through to be determined SOP subcommittee of a proposed IM Operations Committee. The subcommittee will work with the IM Technical Committee to review SOPs, which will then be submitted to the IM Project Directors for approval. The subcommittee will ensure the individual SOPs are NIMS compliant.

The State of Montana's Mutual Aid Handbook was originally written in 1990 and last revised in June 2005. It is NIMS-compliant and will continue to be NIMS-compliant in the future. It forms the baseline for today's interoperability procedures across the state, and will be revised into the new SOPs as regions come online.[4]

The proposed SOP subcommittee working with local consortium Project Directors and public safety service representatives will ensure that no new region's SOP will not cause problems with the new system's higher level of interoperability.

6.3 Agencies included in the development of the SOPs, and expected to comply with the SOPs.

Section 4.2 of this document contains a list of all anticipated users of the new system. Please refer to that section for a list of involved agencies. SOPs will be developed by those users, reviewed and approved by the SOP subcommittee, and will be compliant with all NIMS requirements.

[4] The full State of Montana Mutual Aid And Common Frequencies Manual can be found on the Montana Public Safety Services Bureau's website at http://pssb.mt.gov/.

The SOP subcommittee will define a dispute resolution process to handle any disputes that might arise between the subcommittee and those submitting SOPs for approval.

- All 56 Montana Counties and seven Indian Nations, including the following agencies within those counties and nations (as appropriate):
  - Community Health
  - County Extension
  - Disaster and Emergency Services
  - Emergency Management Services
  - Fire Service Departments, including volunteer
  - Haz Mat Services
  - Law Enforcement
  - Public Health
  - Public Safety Commission
  - Public Works
  - Public School Districts

- State of Montana agencies, including, but not necessarily limited to:
  - Department of Administration
  - Department of Corrections
  - Department of Justice
  - Department of Livestock
  - Department of Military Affairs
  - Department of Natural Resources & Conservation
  - Department of Public Health & Human Services
  - Department of Transportation
  - Fish, Wildlife & Parks
  - Montana Army National Guard

- Federal agencies, including, but not necessarily limited to:
  - The Army Corps of Engineers
  - The Bureau of Land Management (BLM)
  - The Federal Bureau of Investigation (FBI)
  - The National Oceanic & Atmospheric Administration (NOAA)
  - The National Park Service
  - The U. S. Air Force
  - The U.S. Forest Service

6.4 SOPs are NIMS-compliant in terms of the Incident Command System (ICS) and preparedness.

The SOP subcommittee will define and identify required elements for all SOPs to ensure they are NIMS-compliant. The Montana Mutual Aid Manual conforms to Incident Command System (ICS).

7. Training and Exercises

7.1 Process by which the state will develop, manage, maintain and upgrade, or coordinate a statewide training and exercises program.

Montana is still in the early stages of deployment of the new interoperable communications system. Lewis & Clark County, the only entity that has deployed a P25, trunking-capable equipment, is also the only entity that has performed training for its users. The counties and Indian Nations of the Northern Tier are the entities that will next be providing training for their users. With a portion of the Northern Tier becoming operational sometime in the fall of 2007, this plan will be started during the winter of 2007, and will be completed by summer 2008.

The IMPD, the local jurisdictions, state and federal agencies are responsible for ensuring that exercises and training meet the needs of the users, agencies, and consortia in agreement with regulatory requirements. The SOP subcommittee will identify and coordinate the training content and needs as well as who will conduct the training. They will be coordinating with individual agencies at all levels and jurisdictions. In addition, the Law Enforcement and Fire Academies in the state will be proving updated training to their student curricula.

The Homeland Security Exercise and Evaluation Program (HSEEP) is being used by many within the state to plan and coordinate statewide and local exercises. HSEEP will be used to guide the users of the enhanced, interoperable systems in the creation and on-going maintenance of local and state exercise plans.

Montana currently has a budget for training, and the first statewide training plan is being developed as part of the Northern Tier Interoperability Project (NTIP). The training is going to be of a “train-the-trainer” nature, with the first tier of students subsequently taking their training back home and acting as trainers themselves. Please see Appendix B for the Training Plan.

7.2 Offering and requiring training and exercises, as well as certification that will be needed.

The Communications Unit Leader (COML) course curriculum has been completed but is not yet being distributed by the NIMS Integration Center, nor have competency certification requirements been determined. Montana intends to use this course as a basis for training. Communication Unit Leaders and will comply with certification requirements once published.

An Operations Committee of the IMPD will work with each of the disciplines for subscriber user training to ensure that entry level and refresher training will meet the certification requirements. An Operations Committee will identify additional training needed and the responsible parties for delivering the training.

7.3 Process ensuring that training is cross-disciplinary.

The Interoperability Montana communications system embodies a grassroots/ground up cross-disciplinary and multi-jurisdictional methodology. The training will be conducted in the same way the system has been developed using this ground up cross-disciplinary/multi-jurisdictional approach based upon the needs of the system users in all environments whether local, regional, tribal or statewide.

8. Usage

8.1 Plan for ensuring regular usage of the relevant equipment and the SOPs

The initial design of the IM system is a statewide shared system, such that interoperability is inherent in the system design. This approach allows users to interoperate on a daily basis as needed and whenever needed, to enhance their ability to deliver service. Such use of communications equipment and system on a daily basis ensures interoperability is second nature during a significant natural or manmade catastrophic event.

The existing, conventional systems in Montana are being replaced by the new system, they are not simply being augmented. As each entity is deployed on the new system, older, non-interoperable systems and equipment will be phased out. This development has already happened in Lewis & Clark County which began with 450 users and currently having over 1,400 cross disciplinary/multi-jurisdictional users. Current plans call for the standardization of radio programming through the use of templates developed by the IMTC. This will ensure local needs are met while still providing the required statewide interoperability.

As mentioned previously, it is not envisioned that every piece of conventional equipment will be immediately replaced. Instead, conventional interoperable repeaters will be placed on every trunked site to allow conventional, P25 equipment to operate on the trunked system. This provides trunked and non-trunked users the ability to talk to each other over the same set of equipment.

The IMTC will be providing a standardized SOP template for all jurisdictions participating in the IM. All local jurisdiction's interoperable communications SOPs will be reviewed by the IMTC to ensure interoperable capability for local, mutual aid, state, tribal and federal communications.

Montana's ultimate goal on the SAFECOM Interoperability Continuum is a complete set of communications SOPs that are fully compliant with NIMS throughout the state, including all jurisdictions.

9. Funding

9.1 Committed sources of funding, and the process for identifying and securing short- and long term funding

Funding for the IM Project initially came from FEMA and Homeland Security Grant Programs. Additional funding is now coming from FEMA fire grants, state and other Federal agencies. The Montana Legislature has been actively involved in the funding of the Northern Tier Interoperability Consortium (CDP 2). Development of this system is a partnership of local, tribal, state, and Federal resources. Sites owned by public agencies and private individuals are part of this process.

Currently, the State of Montana through the Department of Administration, Information Technology Services Division, Public Safety Services Bureau, has in the Governor's budget for the 2007-2009 Biennium an $8.5 million appropriation for the IM Project of which $3.5 million of this appropriation is for a second Master Control Site to be located in Eastern Montana, the precise location will be determined. The other $5 million is a broad scope of project needs that will be distributed under the authority of the IMPD. The 2005 legislature approved $3.5 million for the Northern Tier Project. Approximately $40 million in Homeland Security and FEMA grants have been used for interoperable communications in Montana since 2001.

The State of Montana, on behalf of the IM Project, has signed agreements with the Department of Interior for site and resource sharing. Similar agreements are being developed by the IM Project with the U.S. Air Force which is contributing approximately $1.9 million toward the IM Project. In addition, the Montana National Guard is contributing about $2 million towards development of this microwave network.

Future funding is expected to be from a combination of local and state funds from the Office of Domestic Preparedness State Homeland Security Grant Program, Community Oriented Policing Services (COPS) and Law Enforcement Terrorism Prevention Program.

Potential funding sources may include:

- Federal appropriations
- Federal grants, including Dept. of Justice and Dept. of Transportation
- State of Montana appropriations, special revenue accounts, and/or user fees

9.2 Plan for the development of a comprehensive funding strategy. Identify ongoing funding sources, anticipated costs, and resources needed for project management and leveraging active projects.

The Interoperability Montana Governance Committee's (IMGC) Finance Subcommittee is developing a plan for administering the new interoperable system. The committee is researching what is currently being spent by local governments on public safety radio communications. This will help determine what direction the committee should take in making recommendations for the new system.

A part of the planning process is to inventory current assets. Much of the collection work has been completed. The information is in the process of being entered into the new CASM system offered by Department of Homeland Security (DHS). This computer assisted system will help maintain a current list of communications assets and serve as a planning tool to determine future needs.

The Montana State University Local Government Center working with the Finance Subcommittee of the Interoperability Montana Governance Committee (IMGC), will research current revenue sources and funding levels of local government emergency communications systems for IMGC to utilize as baseline data as part of the statewide planning process.

The IMGC Funding Initiative will establish strategies to acquire funding streams from partnerships and other funding sources to provide the financial stability needed for all current and future interoperability improvement efforts.

The objectives of this initiative are to:

- Research the existing inventory of current revenue sources and funding levels of emergency radio communications by local government jurisdictions
- Exam of local jurisdictions' budget expenses incurred by their emergency service providers' departments and other public service agencies within local jurisdictions for their communication systems.
- Identify current funding mechanisms and sources of revenues for communication systems within local jurisdictions' budgets
- Collect and prepare a report on current and/or future communication acquisition plans and anticipated expenses.
- Collect data to develop a Communication Asset Survey Mapping (CASM) tool to be utilized by the Interoperability Montana Project to identify and assess emergency communication needs for the State of Montana

The budget analysis initiative will result in the following benefits for Montana public safety practitioners:

- A shared understanding of all available funding resources
- Shared responsibility for funding from the federal, state, and local levels across jurisdictions to support interoperability through partnerships and collaboration
- Increased awareness for developing sound acquisition strategies
- Coordination and collaboration across disciplines and jurisdictions through resource sharing and funding partnerships

The project will assist in identifing committed sources of funding or process for determining current local government levels of contributions to emergency communications by county departments.

This research will assist in developing plans for securing both short- and long-term funding as well as plans for the development of a comprehensive funding strategy. This research will provide a basis for identifying ongoing funding sources, anticipated costs, and resources needed for both project management and leveraging active projects across the state of Montana.

Table 2: On-going Funding Goals, Potential Revenue Streams, Needs and Priorities

Funding Goals	Types of Revenue	Funding Needs	Priorities
Identify Constant and Secure funding streams	Revenue sharing from other established sources, i.e., license fees, license plate fees, gas tax,	Administration (Staffing, Operations and Maintenance Committee Support) investigate other state department support	Establish constant revenue/funding for IM Project
Meet programs needs	Consortia/Regional funding districts	System Build Out	Minimize local system user fees
Allow for and anticipate future technological advances	Grants, public/private partnerships,	Maintenance, repairs and replacement of system and network	Define approximate costs to local governments
	State & Federal Partners		
	Legislative Funding	Training & Exercises	
	Fines & Forfeitures	Capital Improvements	

Montana is still in the process of defining this comprehensive revenue streams.. A number of actual or potential funding sources are known today to exist in the State of Montana as listed below:

- BNSF Railway
- Community Oriented Policing Services (COPS)
- Department of Homeland Security (GNT/HSGP, CBP, OEC)
- Department of Interior (BLM, Park Service, BIA)
- Department of Justice (FBI)
- Federal Fire Grants
- Local jurisdictions, including counties and tribes
- Montana Army National Guard
- National Oceanic and Atmospheric Administration
- Public Safety Interoperability Communication Grant
- State of Montana, including monies allocated to state agencies, in addition to money directly legislated for interoperable communications
- U.S Air Force
- Western Area Power Administration (WAPA)

Not all of these entities can or will contribute money. Some will contribute facilities, access, expertise, spectrum or other non-monetary items of value. These items of value, while not "funding" in the technical sense, have helped and will continue to help build out Montana's interoperable communications system.

10. Implementation

10.1 Action plan with short and long-term goals.

An Action Plan matrix has been designed and developed by the IM Governance Committee (IMGC) identifying both short and long term goals to be achieved for the Interoperability Montana (IM) Project Plan. Also see Section 1.7 for Scope and Timeframe of the Plan

The short term goals have been identified to be achieved within a one year timeframe and include:

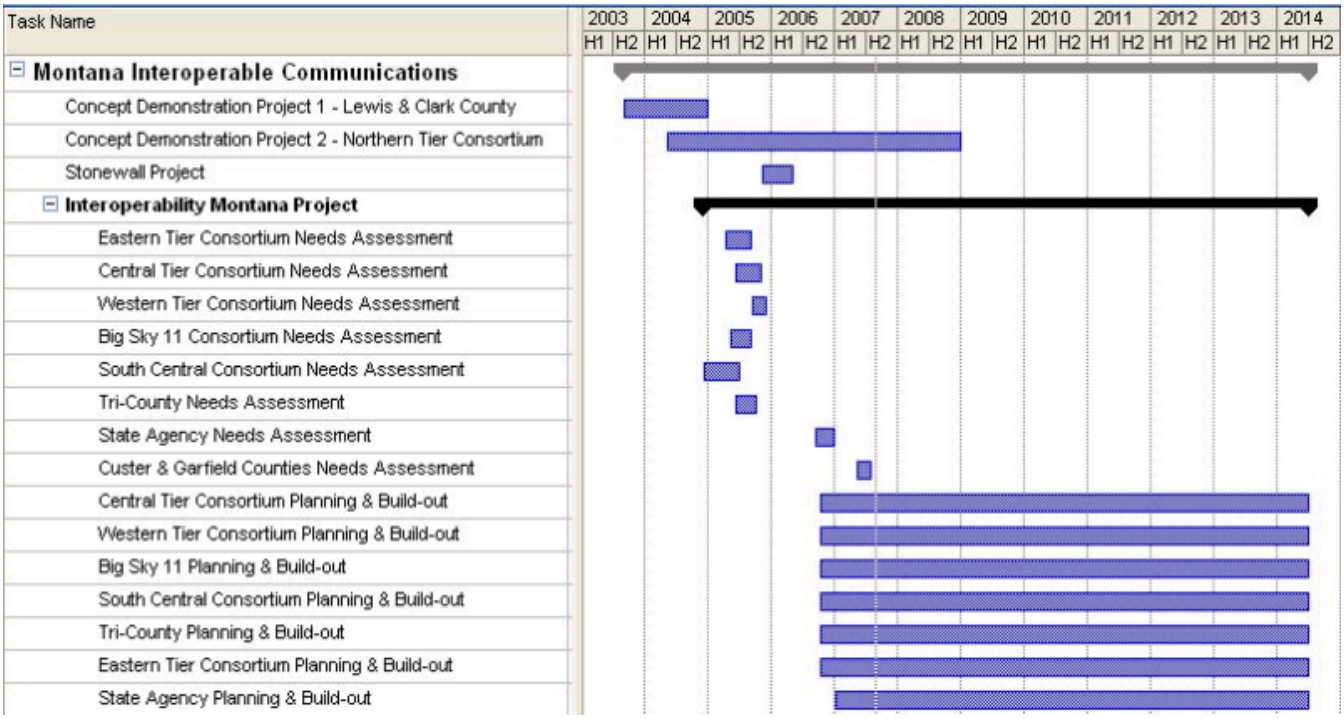
1. Define and Formalize Organizational Structure
2. Identify, Establish and Maintain Key Relationships
3. Identify and Secure Funding Streams for Interoperability Montana Project

The long term goals as laid out in this plan beyond two years include:

1. Develop Consistent Outreach Strategies
2. Project Sustainability Strategy & Planning
3. Needs Assessments and Maintenance Costs
4. Complete Frequency Plan
5. Schedule Plan of Replacement
6. Build-out and Expansion of the System
7. Targeted and Timely Training Plans
8. Project Management of the System

Figure 16, next page, illustrates a mechanism that is being used to track accomplishments of goals and objectives.

Figure 16: Project Management Tracking



10.2 Performance measures that will allow policy makers to track the progress and success of initiatives.

The IM Project Management constantly monitor and track the progress of the various phases of the project. The metrics used on the Northern Tier Interoperability Project are provided here as an example of how progress is being tracked everywhere.

In general, the build-out and progress of these radio projects is divided into the following high-level activities:

1. Organization of consortia or agency groups, formed to initiate and direct the creation of a P25, trunked, interoperable communications system within each consortium's jurisdictional boundaries. This step has already occurred for all the counties and Indian Nations in the State of Montana.
2. Working with technical consultants, each consortium or agency determines what their current state of affairs is with respect to communications, whether interoperable or not. This current state of affairs is documented and includes an inventory of existing equipment and a list of relevant stakeholders.
3. Working with technical consultants, each consortium or agency determines where they believe their entity needs to go with respect to future interoperable capabilities. This is coordinated with the existing standards and guidelines created by those entities that have previously been through the process (Lewis & Clark County and the Northern Tier).
4. Working through the Interoperability Montana Technical Committee (IMTC), plans for new and upgraded radio sites are approved, along with determining the funding source for the work.

5. Once approved, Statements of Work are written up, and a procurement process begun, ultimately ending with contract awards for the actual work to build or upgrade the sites.
6. Working with the successful vendors, project management, the IMTC, and the local representatives coordinate the build-out and deployment of equipments. This includes the acquisition of frequencies, if necessary, for both the microwave and VHF trunking equipment.
7. Step 6 continues until the completion of construction and User Acceptance Testing.
8. During the above process, work is also begun to locate potential funding sources for subscriber units. Local entities are primarily responsible for this step at this time.

The Northern Tier Interoperability Project uses the following metrics to track progress on its radio sites:

Table 3: Preliminary & Setup Work

Task	Percent of Total
Approval To Proceed with This Site	2
Obtain Preliminary Trunking Frequencies	5
Conduct Current Site Survey	10
Create & Distribute Current Site Survey & Site Plot	2
Submit NEPA Checklist	2
Receive Approved NEPA Checklist	10
Submit Required FAA Forms	1
Create & Distribute Updated (New) Site Plot	2
Obtain Signed Site Lease Agreement	35
Obtain Signed Site Use Agreement	20
Send Site Pre-Award Letter	1
Receive Signed Site Pre-Award Letter	10
Total	**100**

Table 4: Civil Construction of Infrastructure (Tower, Shelter, and Generator)

Task	Percent of Total
Create Site Infrastructure SOW	3
Issue Site Infrastructure RFP	1
Award Site Infrastructure Contract	2
Conduct Soil Survey and Deliver Report	1
File Building Permit(s)	1
Identify Tower Loading Requirements	1
Obtain Tech Team Approval of Tower Specs	1
Submit Tower Specs to Manufacturer	1
Prepare Final Tower Design & Drawings	3
Distribute Tower Design Diagram(s)	1
Order Tower (Including lead time)	10
Perform Tower Foundation Construction	3
Perform Tower Foundation Inspection	1
Pour Tower Foundation & Cure	5
Deliver Tower To Site	1

Install Tower	10
Create & Distribute Preliminary Shelter Blueprints	1
Create & Distribute Final (PE) Shelter Blueprints	3
Order Shelter (Including lead time)	10
Pour Shelter Slab & Cure	3
Deliver Shelter To Site	1
Install Shelter	10
Acquire Electrical Permit	1
Order Electrical Work	3
Bring Electrical Power To Compound	1
Bring Electrical Power Into Shelter	1
Order Generator (Including lead time)	3
Pour/Place Generator Slab	1
Deliver Generator & Propane Tank to Site	1
Acquire Mechanical Permit	1
Install Generator & Propane Tank & Initialize	5
Deliver Fence to Site	1
Install Fence	5
Conduct Initial Infrastructure Walkthrough	1
Obtain Initial Infrastructure Walkthrough Approval	3
Total	**100**

Table 5: Microwave Hop Construction and Installation

Task	**Percent of Total**
Conduct Computer Path Survey(s)	1
Create Site Microwave SOW	5
Issue Site Microwave RFP	3
Award Site Microwave Contract	5
Conduct Field Path Survey(s)	1
Identify Microwave Frequencies	5
Design MW System	10
Create & Ship MW Radio Equipment	10
Order & Ship OEM Equipment	10
Create & Ship MW Antenna System	10
Deliver Equipment To Sites (Dishes, ODUs, Radios)	10
Install Hop To Sites (Hang dishes & install equipment)	20
Hop Path Testing	10
Total	**100**

Table 4: Trunking Construction and Installation

Task	**Percent of Total**
Create Site Trunking SOW	3
Issue Site Trunking RFP	1
Award Site Trunking Contract	1
Identify Trunking Frequencies	5
Submit Trunking Frequencies to FCC For Approval	1
Receive Frequency Response from FCC	5

Identify Trunking Frequencies Again		1
Submit Trunking Frequencies to FCC for Approval Again		1
Receive Frequency Approval from FCC		15
Spectrum Fingerprinting by Trunking Vendor		1
Analyze High-level Carrier Report		1
Submit to Trunking Vendor for Approval		1
Receive Frequency Response from Trunking Vendor		5
Analyze High-level Carrier Report Again		1
Submit to Trunking Vendor for Approval Again		1
Receive Frequency Approval from Trunking Vendor		10
Create & Ship VHF Trunking Equipment		5
Design Combining Equipment		10
Create & Ship Combining Equipment		5
Create & Ship Antenna System		5
Deliver Trunking Equipment to Site		1
Hang Antenna & Install Trunking Equipment		15
Site Trunking UAT		5
Site Becomes Operational		1
	Total	**100**

Progress on the project is tracked weekly, with project management addressing issues as they arise. Monthly meetings with the IMPD are conducted, with escalated issues discussed and addressed.

10.3 Plan for educating policy makers and practitioners on interoperability goals and initiatives.

A Marketing Plan and Public Information Campaign for Interoperability Montana (IM) is being developed by the established Marketing/Outreach subcommittee of the IM Governance Committee. As part of this plan and campaign information, products, targeted audiences and means to communicate are being designed.

Some activities and products have already been initiated by this group that includes:

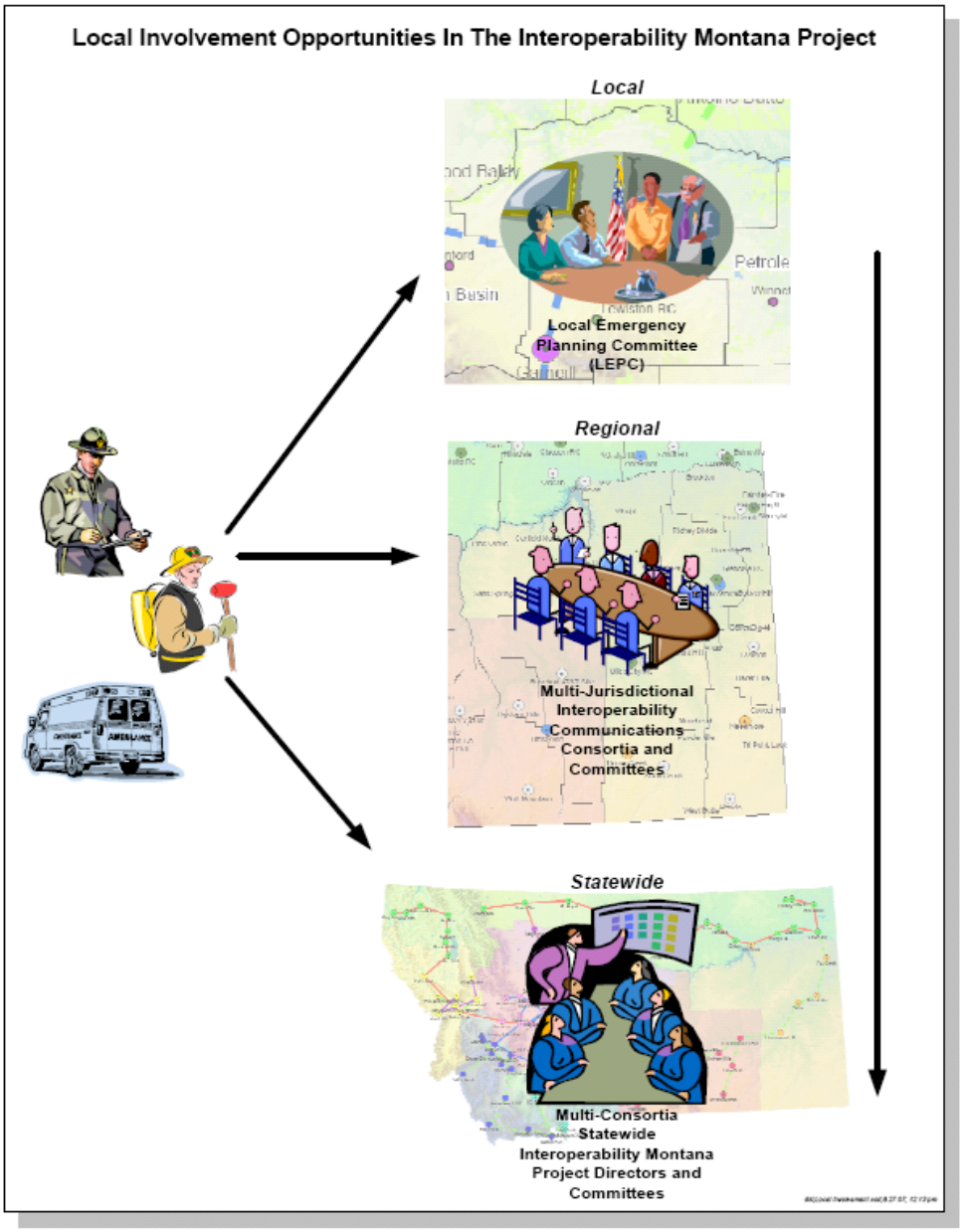
- Development of a Fact Sheet describing an Overview of Interoperability Montana Project, its structure and demonstration projects across the state. This Fact Sheet is used in presentations to various policy-makers and local and state elected officials
- *Heard Across Montana* (HAM) a weekly electronic newsletter produced by the Public Safety Service Bureau (PSSB) for weekly updates of IM Project activities, committee reports and a calendar of committee and consortium meetings.
- A comprehensive website has been developed for the IM Project, the IMPD, the IMGC, IMTC and all consortia. It is updated regularly and contains copies of all meetings, minutes and agendas. http://interop.mt.gov
- A live demonstration of interoperable radio communications was displayed for state legislators doing the 2007 legislative session

- Testimony was presented at the 2007 legislative session by various IM Project Directors, local responders and state officials to encourage funding for the Interoperability Montana Project. The legislature later authorized $8 million for the IM Project..
- Outreach efforts have been made to local County Commissioners through formal presentation by members of the IMGC. These presentations highlighted the need for statewide Interoperability system and the partnerships for sharing of cost by local, state and federal governments. These presentations were made across the state to the Montana Association of County Officials (MACo) at scheduled District meetings held in June '07. A PowerPoint presentation and materials were developed including handouts of summaries of activities and accomplishment of IM to date.
- An issue of the *Montana Policy Review* (MPR) a publication prepared by the Montana State University Local Government Center was developed exclusively around the issue of Interoperability Montana. This publication was distributed to more than 400 policy-makers and government officials across the state; that including all 56 County Commissions, 129 Mayors, 12 City Managers, 56 County DES Coordinators, Volunteer and Rural Fire Chiefs, Chiefs of Police and Sheriffs, 150 State Legislators, State Executive Officers and Montana's U.S. Congressional delegation and district offices.

Please see Appendix N for hyperlinks to the IM Project Fact Sheet; Heard Across Montana (HAM) newsletter and Montana Policy Review (MPR).

10.4 Roles and opportunities for involvement of all agencies in the implementation of the statewide plan.

Figure 17: Local Involvement Opportunities in the Interoperability Montana Project



Local stakeholders (sheriff, police, fire, EMS, etc.) have the opportunity in Montana to fully participate and influence the statewide plan. As mentioned previously, this process began as a grassroots effort, with locals driving the process from the beginning. The basic local unit is the Local Emergency Planning Committee (LEPC) or the Tribal Emergency Response Committee (TERC). The LEPCs and TERCs have been in place and functioning for many years, since the enactment of Superfund Amendments Reauthorization Act (SARA) III, and have a history of helping diverse local agencies cooperate and interoperate.

Montana's counties and Indian Nations have banded together in eight regional interoperability consortia. Please *Section 1.2* for a list of consortia and their members. Representatives of local jurisdictions have the opportunity to participate as members of the consortia. The consortia meet individually and plan the goals and details of their region. The emphasis is on ensuring that needs are met with respect to interoperable communications. Although various state and/or federal agencies are invited and often attend these regional consortia meetings, they are not generally members at this level.

At the state level, the Interoperability Montana Project Directors board is made up of representatives from the seven regional consortia and the Mobile Data Terminal consortium, as well as, representatives from three heavily-involved state agencies, such as Montana Department of Natural Resources, Montana Department of Transportation and the Montana Highway Patrol.

A local person who wishes to participate actively in the Montana interoperable communications effort has opportunities at the local, regional, and state level, ensuring that Montana's effort remains driven by, and supported by the needs of local agencies, while not excluding the state agencies.

All monetary decisions to be made for the IM project are ultimately determined by elected officials within their jurisdictions including but not limited to:

- Purchase of subscriber units
- Acceptance and upgrades to infrastructure (towers, shelters, generators, etc.)
- Letters Of Concurrence (LOCs) for use of local frequencies throughout the statewide build out
- Budgeting for on-going maintenance
- User Fees

10.5 Plan for Identify, develop and oversee operational requirements, SOPs, training, technical solutions, and short- and long-term funding sources.

Previous referenced Sections of this SCIP address the plans, means and methods for achieving the operational, technical, training and funding requirements of the Statewide Communication Interoperability Plan (SCIP). As listed below.

Section 5.2 addresses the Needs Assessment that were conducted in each consortium to develop technical solutions to emergency communication networks, as well as a IM Project Migration Plan for communication technology.

Section 6.2 addresses the use of the NIMS complaint Montana Mutual Aid and Common Frequencies Handbook for standard operating procedures of Montana's public safety radio communication program.

Section 7.1 addresses the development of a Training Plan and program to be utilized. The implementation and use of these training plans will be through the consortia and local public safety and emergency providers.

Section 9.2 addresses in detail the funding strategies for both short and long term funding sources. These would involve developing and securing partnerships and levels of contribution by various identified sources.

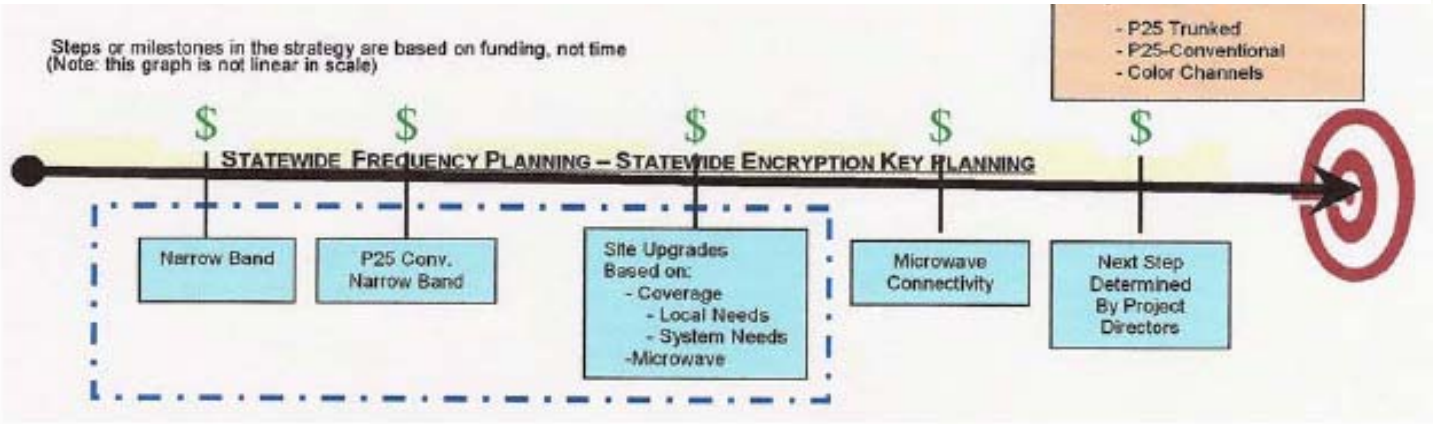
10.6 POC responsible for implementing the plan.

The IM Project is currently addressing its staffing needs through its committee process and a single Point of Contact (POC) has yet to be indentified. Currently, the executive officer and management team is being defined by the IM Governance Committee and it will make a recommendation to the IM Project Directors (IMPD) in the near future. The roles and responsibilities will be defined as a result of this process for a POC as will all other staffing needs.

10.7 Critical success factors for implementation of the plan.

The diagram below describes the **Radio System Deployment Strategy** for milestones or steps to be accomplished.

Figure 18: Radio System Deployment Strategy



GOAL: Consortia reach milestones together

Centralized Project Management – Frequency Planning, Encryption Key Planning

Coordination – Collaboration – Funding – Governance

Prioritization of Steps: Local need is first priority (within the definition of statewide interoperability established by the SIEC)

Business Practice Review and Training

As described in the various sections of the Statewide Communication Interoperability Plan (SCIP), Interoperability Montana has initiated processes, organizations and projects that form the basis for building interoperability policies and plans. Critical success factors for the implementation of the plan address the above-mentioned needs below.

- **Clearly state objectives for Interoperability Montana (IM)**
    - Montana has an established definition of interoperability that was adopted by the Statewide Interoperability Executive Council (SIEC) and the Interoperability Montana Project Directors (IMPD). This definition and the state's technical specifications form the foundation for future development. Long-term strategies and objectives beyond current projects are being presently established and will be communicated.
- **Finalize a permanent governance structure.**
    - Montana's grass-root approach has facilitated local leadership of the interoperability process with selected participation by local, state, tribal and partners. The eight voice and one mobile data consortium are led by local public safety officials. The Directors of those consortia are represented on the IMPD Board. The Board represents the present foundation for interoperability leadership and governance in Montana. This would include the final development of the Interlocal government agreements signed by each consortium, the completion of the Memorandum of Understanding signed by the IMPD members and securing a permanent Executive staffing position for the IM Project.
- **Continue to identify and define other Federal, State, local agencies and non-government organizations to participation in Montana's Interoperability process**
    - Several State of Montana agencies that utilize wireless communication are participating in the process. It is Montana's intention to identify the degree of interoperable use of future agency systems and define elements of participation.
- **Identify financing for project sustainability.**
    - In the process of defining governance and use, it is critical to identify and establish sustained funding sources to support interoperability in Montana.
- **Develop a platform for Standard Operating Procedures and Training and Exercise modeling**
    - Processes, procedures and recommendations developed through this Plan will form the foundation for the IMPD Board to establish statewide policies on interoperability and future system utilization. This foundation will serve as a boilerplate for local, tribal and regional consortia groups to develop training and exercises and standard operating procedures. Governance modeling will include approaches for asset tracking and system oversight.
- **Develop strategy to communicate the plan**
    - A public information and marketing plan will continue to be established to provide education and outreach to policy makers across for their continued support of interoperability. Using new technology, develop the strategy and resources to distribute the relevant information with web-based tools and services, and distributing information booklets

11. PSIC Requirements

11.1 Describe how public safety agencies plan, coordinate, acquire, deploy and train on interoperable communications equipment, software and systems

1) Utilize reallocated public safety – the public safety spectrum in the 700 MHz frequency band
2) Enable interoperability with communication systems that can utilize reallocated public safety spectrum for communications
3) Otherwise improve or advance the interoperability of public safety communications system that utilize other public safety spectrum bands

Montana will utilize the established Interoperability Montana Project Directors (IMPD) board as the central body that is responsible for planning, coordinating and implementing interoperable communications initiatives regarding software, equipment and systems. The IMPD provides guidance and oversight for local, tribal and state interoperable initiatives.

These established mechanisms, which include governance, technical evaluation and project management, fit well with the PSIC requirements for implementing interoperable projects.

Montana's Statewide Communications Interoperability Plan (SCIP) builds on the state's strong interoperability communications structure and elements. This existing foundation provides Montana with a distinct advantage in being able to address these three key elements of the PSIC grant guidance:

- Frequency (Spectrum Efficiency)
- Future Use of the 700 MHz Band
- Interoperability with other bands

Spectrum Efficiency: The majority of Montana's emergency responders utilize the Very High Frequency (VHF) band. For years, Montana has utilized an efficient and functional mutual aid frequency system, that operates in the simplex mode. It is a model for other states and regions. The Interoperability Montana Project (IM), through the PSIC grant, is expanding the capabilities of a connected and comprehensive voice and data system that will supplement the current VHF capabilities of local and state responders and implement interoperable tools not presently available. The Interoperability Montana trunked/conventional system will be built upon the connected sites funded by the PSIC award, which will greatly improve voice and data interoperability.

700 MHz Utilization: Montana's approach is not to use 700 MHz as a primary choice for voice communications. The focus of the PSIC grant is to improve communications site reliability and provide digital connectivity to allow expansion of voice and data systems. It is the intent of the Interoperability Montana Project to use this foundation to expand mobile data capabilities through the 700 MHz spectrum, utilizing the PSIC-funded system to connect sites. The PSIC grant will also allow access to critical areas where future 700 MHz interoperability channels will be utilized to interface with the Idaho 700 MHz system now under deployment. Connectivity between northern and southern Idaho is not possible because of geographic barriers and large stretches of National Forest land. Montana has an Idaho

access point at its Sawtell communications site, and plans are to build another one at Look Out pass on the western border.

Multi-band Interoperability: Regardless of the band used by emergency response personnel, a connected digital ring, utilized in conjunction with Montana's deployment of a VHF trunking system, will allow repeaters from other bands to be placed at sites and, as necessary, patched into other systems.

11.2 Describe how strategic technology reserve (STR) will be established and implemented to pre-position or secure interoperable communications in advance for immediate deployment in an emergency or major disaster

The strategy for utilizing the PSIC required Strategic Technology Reserve (STR) is simple: maximize tools that enhance the system being deployed, make them dependable, and utilize these tools on a regular basis.

The IM Project is being designed and implemented with a number of backup systems and fail-safe mechanisms and redundant backup modes which will allow quick recovery during catastrophic events. For example, the communications sites being developed all have reliable power, meet R56 grounding specifications, are properly engineered, and have emergency power provided via generators and/or battery systems. In addition, each communications site has numerous security and operational alarms. The microwave system is designed and employed with a hot-standby configuration and is configured in a space diversity or loop configuration. This ensures that if a problem is encountered, information and operations can be rerouted, resulting in the restoration of communications in the shortest time possible. A total site failure will result in a notification alarm to a monitored station.

The voice radio system designed by Motorola Corporation also has several fail-safe modes. If regional trunking capabilities are lost due to microwave system failure, the site reverts to a 'site trunking' mode. If this mode is lost, each of the repeaters returns to a conventional mode. This design limits the extent of communications failures.

Additionally, local and State of Montana agencies, such as the Montana Department of Natural Resources (DNRC), have previously purchased mobile conventional repeater systems for use in fires and other emergencies. The IM Project is currently working on negotiations for emergency helicopter and snowcat services with the Montana DNRC, Fish, Wildlife and Parks and National Guard.

Montana has submitted a formal request to seek a partial waiver from the STR requirements because the IMPD believes that it is in the best interest of the IM Project, the State of Montana and first responder needs if part of the STR money is directed to non-STR equipment, which represents a higher priority need. This equipment consists of multiple caches of spare boards, routers, repeaters, and maintenance parts for key radio and microwave sites to restore connectivity in the event of a major disaster. The IMPD voted on November 6, 2007 to approve use of STR monies for this purpose and directed the State of Montana to seek this exemption.

The readiness of Montana's communications sites can be improved by purchasing two Emergency Spare Kits for the Master Controllers, acquiring three regional radio Rapid Response Maintenance Packs and three microwave site Rapid Response Maintenance Packs.

This investment will better serve the needs of first responders. This investment will assist the state in re-establishing communications if existing critical infrastructure is damaged or destroyed in an emergency or major disaster.

The total STR allocation to the State of Montana is $507,263. It has been proposed that $375,000 of the allocation be waived in order to purchase the following equipment:

$150,000 Master Controller Emergency Spare Kits (2 @ $75K)

$150,000 Regional Radio Site Rapid Response Maintenance Packs (3 @ $50K)

$ 75,000 Regional Microwave Rapid Response Maintenance Packs (3 @ $25K)

Montana's balance of STR funds will be used to develop three emergency 'site' units. Should a critical site be lost due to catastrophic disaster, a unit would be deployed to provide temporary connectivity and radio communications that can be plugged into the Interoperability Montana System. The unit will include a portable emergency generator, a portable tower and a mobile repeater.

The budget to purchase emergency response equipment is as follows:

$ 75,000 Mobile Emergency Power Generation Units (3 Total)

$ 25,000 Mobile VHF Repeater Unit

$ 32,263 Mobile Tower Units(s)

11.3 Describe how local and tribal government entities' interoperable communications needs have been included in the planning process and how their needs are being addressed

One important requirement of the PSIC grant is assessing and meeting local and tribal needs in the planning process. This process is critical for the successful progression interoperability in Montana.

Montana's approach to interoperable planning through the Interoperability Montana Project ensures local and tribal participation in the SCIP and other planning elements. Each county and Indian Nation in Montana is a member of a regional consortium. Each consortium has a director who is designated as a voting member of the Interoperability Montana Project Directors (IMPD) board. Local and tribal needs are communicated via a local level to the consortium, with leaders bringing concerns to the IMPD and/or its standing committees. Funding through PSIC and other programs is voted on and funds will be distributed through the IMPD for local and regional projects that are all tied to enhancing the Interoperability Montana Project.

11.4 Describe how authorized non-governmental organizations' interoperable communications needs have been included in the planning process and how their needs are being addressed (if applicable)

PSIC grant requirements necessitate states to assess non-governmental interoperable communications needs as part of their state planning processes. Through the Interoperability Montana Project, the State of Montana is assessing and incorporating non-governmental needs.

Regional interoperability communications needs assessments have been completed in Montana's eight consortia. As a result, non-government agency needs have been identified and are being considered through local planning efforts. Under local operation plans, agencies such as private ambulance services, private fire responders, transportation companies, utilities, the Red Cross and other relief organizations, play an important part in disaster response. Their communications needs and information interfaces have been documented. These needs are routinely considered at the Interoperability Montana Technical Committee level and when plans are developed to deploy sites on the IM system.

In addition, a five-year cooperative agreement for site use and network access has been negotiated and signed between the State of Montana, BNSF Railway and the Northern Tier Interoperability Project to greatly enhance communications capability in critical areas of northwestern Montana. This agreement gives local and state responders communications abilities in areas that previously were inaccessible. Opportunities for expanding this cooperative partnership are targeted for other regions in Montana.

Appendix A: Points of Contact

1.3: Point of Contact for Interoperability Montana

The Interim Point of Contact (POC) that can be reached for questions regarding the Plan

Name: Chris Christensen

Title: Bureau Chief Public Safety Service Bureau

Information Technology Services Division

Address: 111 N Last Chance Gulch, Arcade Building, Suite 4A, Helena, MT 59620-0117

Phone: 406-444-7370

Website: www.pssb.mt.gov

Email: cchristensen@mt.gov

1.6: Point of Contact for Tactical Interoperable Communications Plan (TICP)

The primary point of contact (POC) that can be reached for questions regarding the Plan:

Name: James L. Kraft

Title: Director, Yellowstone County Disaster and Emergency Services

Address: P.O. Box 35004, Billings, MT 59107

Phone: (O) 406-256-2775, © 406-256-6947

E-Mail: jkraft@co.yellowstone.mt.us

10.6 Point of Contact for Implementing the Plan

Name: Chris Christensen

Title: Bureau Chief Public Safety Service Bureau

Information Technology Services Division

Address: 111 N Last Chance Gulch, Arcade Building, Suite 4A, Helena, MT 59620-0117

Phone: 406-444-7370

Website: www.pssb.mt.gov

Email: cchristensen@mt.gov

Appendix B: Interoperability Montana Training Plan

TRAINING PLAN

Version 4

October 28, 2007

THE NEXT GENERATION OF INTEROPERABILITY RADIO

NORTHROP GRUMMAN

TABLE OF CONTENTS

1. Introduction

1.1 Training Plan Overview

The wide ranging nature of the Interoperability Montana Project will present significant challenges to training responders and system users across the state. The shear geographic size of the State of Montana, the 56 counties and 7 tribal nations give an idea of the scope of this effort.

One of the primary needs for training is the introduction of a new paradigm of radio communication in the state. The wide area trunking system brings new capabilities that allow users to communicate in ways that were not even possible through conventional VHF.

This training plan is being developed during the rollout of the first phases of the Interoperability Montana (IM) Project. Initial courses and planning will focus on those needs with the perspective that the plan will be used as the system is rolled out across the state.

Training and Development is a Process

This training plan is not intended to be the end, but rather the means to starting training. The plan is a general guide and is intended to help implement training programs. Learning is an ongoing process.

1.2 History of the Interoperability Montana Project

The Interoperability Montana Project is a partnership of local, tribal, state and federal response agencies committed to improving and expanding interoperable communications throughout Montana. The partners are divided into three main categories: 1) Regional Consortia (representing local and tribal interests); 2) State of Montana Agencies (representing all levels of state radio users); 3) Federal and Private Partnerships.

The IM Project consists of eight consortia and one mobile data terminal consortium, each with one voting membership on the board of Interoperability Montana Project Directors (IMPD). As part of the IM Project, each of these consortium have agreed to work together and advance the development of interoperable communications infrastructure according to the priorities and funding established by the IMPD. The IMPD is a dynamic, cohesive group dedicated to the deployment of Montana wide communications interoperability for public safety responders.

The majority of Montana's existing public safety voice radio systems rely on 30 year-old technology. The IM Project addresses the interoperable public safety communication system needs of the eight county consortiums as well as state and federal agencies in the State of Montana.

The improved ability of all local, tribal, state, and federal public safety responders to

communicate among and within these counties will provide citizens of Montana with an emergency responder force better able to protect them in the case of a disaster, whether natural or manmade. This is in keeping with the goals of the federal Homeland Security Agency that has supplied much of the funding for the project to date.

1.3 Training Motivation

With the introduction of new technology for interoperable radio communications comes the need for training on that new technology and any associated changes in operating procedures. The deployment of the first two Concept Demonstration Projects (CDP1 and CDP2) resulted in the deployment of a vast new radio system spanning the region surrounding Lewis and Clark County and the Northern Tier project which covers the entire 565 mile border with Canada and south for roughly 75 miles.

The training for this and any other new system of this size requires the careful identifications of training needs and a careful coordination with users so their training is received in a timely manner, but not too far in advance of the deployment of the new system.

Training must also be tailored to the users receiving training. A dispatch person, for example, does not need the same training as a law enforcement officer in the field, who may require different training than a Fire Chief. As a result, this Training Plan is structured in modules that can be combined in ways to most effectively meet the training needs of all targeted users.

In CDP1 it was pointed out that without recurring training, people will fall back to old habits. Recurring training is critical to effective ongoing operations of the new system.

1.4 Training Goals

Each person receiving training on the new Interoperability Montana radio system is there because they have an identified need to use that equipment in an effective, efficient, and coordinated manner. Although similar to equipment used in the past, the new equipment is different enough, and the Standard Operating Procedures (SOPs) can be different enough that simply picking it up and using it without training will not be sufficient, particularly in an emergency.

Each person receiving training will not only be required to learn how to operate the new equipment, but will also need to learn about any changes in SOPs that have been identified by each jurisdiction receiving training. In reality, the new equipment, once the initial learning curve is overcome, should be easier to use than the old, in the sense that more of the mundane tasks (such as selecting a repeater) are done automatically for the user, without their awareness that these tasks are being performed.

Each user will be successfully trained if they leave training knowing the basic operation of the equipment they must deal with, along with the basic SOPs. It is never really possible for a person to leave a training knowing every and all aspects of the subject being trained upon. It is, however, possible to leave training knowing the basic operating principles, and where to find the answers to subsequent questions. With this in mind, the training program includes the reference materials necessary to provide the trainees with the resources they will require to meet their future information requirements.

2. Training Methodology

2.1 Trainer Roles

Trainers will be developed from local users who have an interest in the technology and the people who use it. They understand the system, how to experiment with it, and then be able to adapt the new capabilities with their SOPs and then share the information with their peers. It will be critical for this trainer role to bring coordination between the PSAP and field level responders.

One of the first tasks to be performed as part of the development of the training program is to recruit and select who the trainers are going to be. The first tier of trainers will consist of that trainer, or those trainers, who will "train the trainers." The second tier is these trainers who were trained by the first tier and who will subsequently go forth and train the rest of the users across a consortium.

Once trained, the second tier of trainers will contact local agencies and set up a schedule for training. The exact size and geographic diversity of the training to be provided will be determined at a later time.

2.2 Trainee Roles

The following are a list of potential roles that will be associated with a suggested training curriculum shown in matrix form in the next section.

- **Training Manager:** The training manager will be a staff level position within the organization that reports to the IMPD. This person will oversee and coordinate training programs for responders across the state of Montana.
- **Executive:** This group would include County Commissioners, Tribal Council Members, Consortia Board Representatives, Sheriffs, City Police Chiefs, Fire Chiefs, State Agency Administrators, Federal Partners, etc.
- **Responder:** This group would include anyone who responds to incidents and uses the two way radio communication for that purpose.
- **Dispatch:** This group involves anyone who works in a dispatch center.
- **System Admin:** This group involves anyone who will be included in management of the trunked radio system, the network that supports the system or programs radio equipment.
- **Communication Manager:** This group involves people who oversee groups of people using the system or who define any type of standard operating procedures. This could include 911 Coordinators, Police Captains, EMS coordinators, Fire Captains, etc.

2.3 Course Information

The following table contains a list of potential course titles grouped into modules that can be directed to specific roles and attendees. Additional and more detailed individual courses will be identified and added to this list as the program moves forward.

The timeline for these courses would have to be evaluated at the operational department level to limit costs in both dollars and time. An organization training manager would select minimum course requirements for their organization.

Course descriptions would be created as an appendix to this plan.

Categorized Courses	Descriptions	Roles				
x = Mandatory o = Optional		Executive	Responder	Dispatch	Sys Admin	Comm Mgr
Fundamentals						
Radio Fundamentals		x	x	x	x	x
Trunking Fundamentals		x	x	x	x	x
Radio Programming					x	x
Standard Operating Procedures		o	x	x	x	x
Dispatch		o	x	x	x	x
Mutual Aid Channels		o	x	x	x	x
Encryption		o	x	x	x	x
NIMS Fundamentals		x	x	x	x	x
Responders and Interoperability						
Local Standard Operating Procedures		x	x	x	x	x
Statewide Standard Operating Procedures		x	x	x	x	x
System Administration						
Trunking System Administration				x	x	x
Fleetmapping				x	x	x
Programming Radios					x	x
Network Management					x	x
Network Monitoring					x	x

Maintenance						
So You Are The New Site Manager…						x
Advanced Dispatch						
Consoles				x	x	x
Advanced Trunking Capabilities				x	x	x
Continuing Education and Advanced Classes						
After Action Reporting and SOP Updates		x	x	x	x	x

2.4 Training Options and Guidelines

Setting up and conducting training should be categorized into two areas: academic training and operations training. The academic training would provide field users and others an overview of the more technical aspects of the program. This could include a laymen's view of system administration, radio programming, networking, etc. Operational training would focus responders on how they use the radios rather than on how the system works.

2.5 Training Matrix, Sequence and Optional Locations

Notice the key and how to determine which course is required for which position; optional courses would be taken depending on region, funding, time, and management.

Once the preliminary courses have been completed, each trainee must follow up with more thorough training in order to become a certified user. Another alternative is to bypass the basic courses and complete the advanced courses in their entirety. Completing this course work depends upon available time and experience required in order to do the job.

What has been identified a critical component of this training plan is the need for responders to go through continuing education classes on the system. Based on the feedback from CDP1 it was felt that follow up training should take place twice per year. It was suggested that this take place in the spring and fall of the year for every responder.

After Action Reports need to be completed for major incidents. These reports can then be used to refine standard operating procedures and ultimately be taken back to responders who are involved in a particular type of incident.

The following is a list of options for where classes could be conducted:

- Community Colleges
- Fire Training School
- Law Enforcement Academy

The follow is a sample list of organizations that can help with providing courses, content and resources:

- MSPOA
- DNRC
- MACOP
- MPPA
- FCA

2.6 SOP Breakout Sessions

Without recurring training on standard operating procedures responders will fall back to old habits and methods of communication. This may limit their ability to interact with regional, state and federal agencies. Exercises have been identified as one of the most effective methods of training due to the hands on nature of the training.

To be most efficient, it might be advisable to try to combine some of the above mentioning trainings into a general training related to the discipline, and then have breakout sessions where differing SOPs are trained on by locals familiar with their respective SOPs:

Cost may be a hindrance to the training process. Not just in dollars, but with volunteers the cost is measured in time. In any case the training manager and departmental communication managers will have to create more detailed training plans that balance out the need for training with the availability of resources and funding.

2.7 Curriculum Options per Discipline

The training materials to be developed for each of the courses listed above will include the following modules:

1. Common – Required training common to everyone receiving training
2. Dispatch – Training unique to Dispatch, if any
3. Law Enforcement – Training unique to LE, if any
4. Fire – Training unique to Fire, if any
5. EMS – Training unique to EMS, if any
6. Public Works – Training unique to PW, if any
7. MHP – Training unique to MHP, if any
8. Dept. Transportation – Training unique to MDT, if any
9. DOC – Training unique to DOC, if any

10. DNRC – Training unique to DNRC, if any

3. Training Materials and Logistics

3.1 Materials Development

The primary methodology for training will initially involve a trainer, printed materials, presentations and in-person training sessions. As the program evolves and materials are developed, there is a good possibility that some of the fundamental training could be developed for online or self-paced training and materials.

In any case the strategy for creating the training materials could involve:

- Solicit from users what they feel they need to be trained on.
- Look for sources of training materials, as well as options for on-line courses, teleconference, in person, etc. SAFECOM and other organizations may be able to provide materials and courses.
- Utilize and modify any existing training materials that involve interoperability and SOPs.

While it may be possible to create the training material without soliciting input from future users of the system, giving them the opportunity to provide input will ensure areas of training are not missed. Future users will be tempted to say, "I don't know the new system so how would I know what I need to be trained on?" This indicates the users are concentrating on the wrong thing. User responses should encompass what it is they need to be able to do to perform their jobs efficiently and successfully. Once this information is returned to the training material developers, they can turn those "what's" into "how's" using the new system.

The initial statewide training will be conducted using an instructor led hands-on radio training methodology. Instructor led hands-on radio training provides a combination of classroom training and actual radio usage. This training strategy allows for individualized, personalized attention and motivation from an experienced instructor. Trainee questions can be answered immediately and the user acquires actual hands-on, real-life experience with the system.

Initial training will be conducted using instructor-led lecture classes with hands-on exercises that allow the user to work in the training system. On-line help, handouts, and structured training exercises will be used to supplement the instructor-led classes. Instructors will provide workers with personalized feedback while workers have the opportunity to perform exercises that are related to their daily tasks. Workers will also have the opportunity to bring actual cases to work on during a lab session which will allow for application of the training data to real-life, familiar situations. While instructor led hands-on training is the most effective way to train a large number of users on a new radio system within a specified implementation schedule, a drawback to this methodology is the length of the session. Experience with conducting systems training shows that the effectiveness of classroom training diminishes significantly if the session exceeds

one week; however, it is sometimes impossible to train users to the ideal level of proficiency within one week. However, this training methodology combined with other implementation strategies (i.e., Help Desk, User Manual and on-going training) will mitigate the impact of this disadvantage.

The first training session should be considered a pilot session, with the expectation the training material will be a little rough and needing improvement. Each group of students will be asked for feedback on how the course can be improved, but the first group will be especially important in this regard, providing trainers with the first set of feedback they will receive.

Effective communication both prior to and during the initial statewide implementation is one important element in a smooth introduction.

Pre-implementation communication methods will include:

- A Pre-Training Guide will be published and distributed to each user prior to their designated training session. The Pre-Training Guide will highlight certain information (i.e., basic usage, programming, mutual aid). The guide will be accompanied by a cover letter which will include the assigned training date and location, a list of items to bring to training, and training parameters (i.e., dress code).

On-going communication tools will include:

- On-line help and announcements will be used to clarify issues which may result in training and/or to update users about system modifications.

3.2 Visual Aids

Diagrams and graphics, such as the ones below, would be included in the training manual as well showing typical radio controls and programming configuration:

The power of an image is unsurpassed for conveying volumes of information. Several visual aid materials are appropriate for radio communications training beyond the traditional use of slides and overhead transparencies. For introducing equipment, increasing familiarity with features,

and presenting new procedures, videos and photographs serve as enhanced training tools. The use of actual user equipment during training sessions to demonstrate methods or functions interactively can significantly enhance training opportunities. Furthermore, the ability of users to demonstrate problems or difficulties interactively on the actual equipment provides an additional avenue for feedback and instruction. Also, system coverage area maps can be used to identify problem coverage areas for technical investigations and potential corrections.

3.3 Facilities and Equipment

Options for facilities could include working through the current responder training sources such as local community colleges, the Fire Training Program, Law Enforcement academies, and DES training programs.

Depending on whether or not training is local, regional, live, or web cast, there are many options. Facilities and equipment required will depend on the desired means of delivery. Regardless, a live testing version would best support the training of interoperability radio users. A small region of the system will be established to allow interactive training using the new software, providing hands on training for all users during the entire training process. This is necessary for accurate user training and ease of transition into the new system, also allowing trial and error testing without affecting the live system. This region will be active only when scheduled training activities are occurring. In order to simulate the production system, software for training will be copied from the most current version available when training begins. This isolated training region is essential for several reasons:

- The instructors will not have to worry about changes made to modules as training sessions are in progress. This will eliminate the possibility of interruptions to the training process resulting from the migration of load modules into the training environment.
- The instructors will not have to alter their training strategy due to system or database changes made once the training process has been initiated unless necessary.
- It is critical that users develop confidence in the interoperability radio system throughout the training process. Ongoing interruptions due to software changes or lack of data integrity could be detrimental to this goal.

4. Schedule

4.1 Training-the-Trainer Time Line

Initial train the trainer programs are being conducted in the Northern Tier at the time of this report. Further training schedules will have to be determined based on the need of local jurisdictions.

4.2 Trainee Schedule

Training will occur based on the final system implementation schedule for each region. The overall approach has been designed to minimize any disruptions to the day-to-day activities, yet provide workers with the skills necessary to be able to use their radios immediately after completion of the training curriculum. In other words, no office will have all of the workers being trained at the same time so that some workers remain to cover the day-to-day responsibilities.

4.3 Rollout Schedule

The overall approach to training will be designed to minimize any disruptions to the day-to-day work activities, yet provide workers with the skills necessary to be able to use their radio systems immediately after completion of the training curriculum. In other words, no office will have all of the workers being trained at the same time so that some workers remain to cover the day-to-day responsibilities.

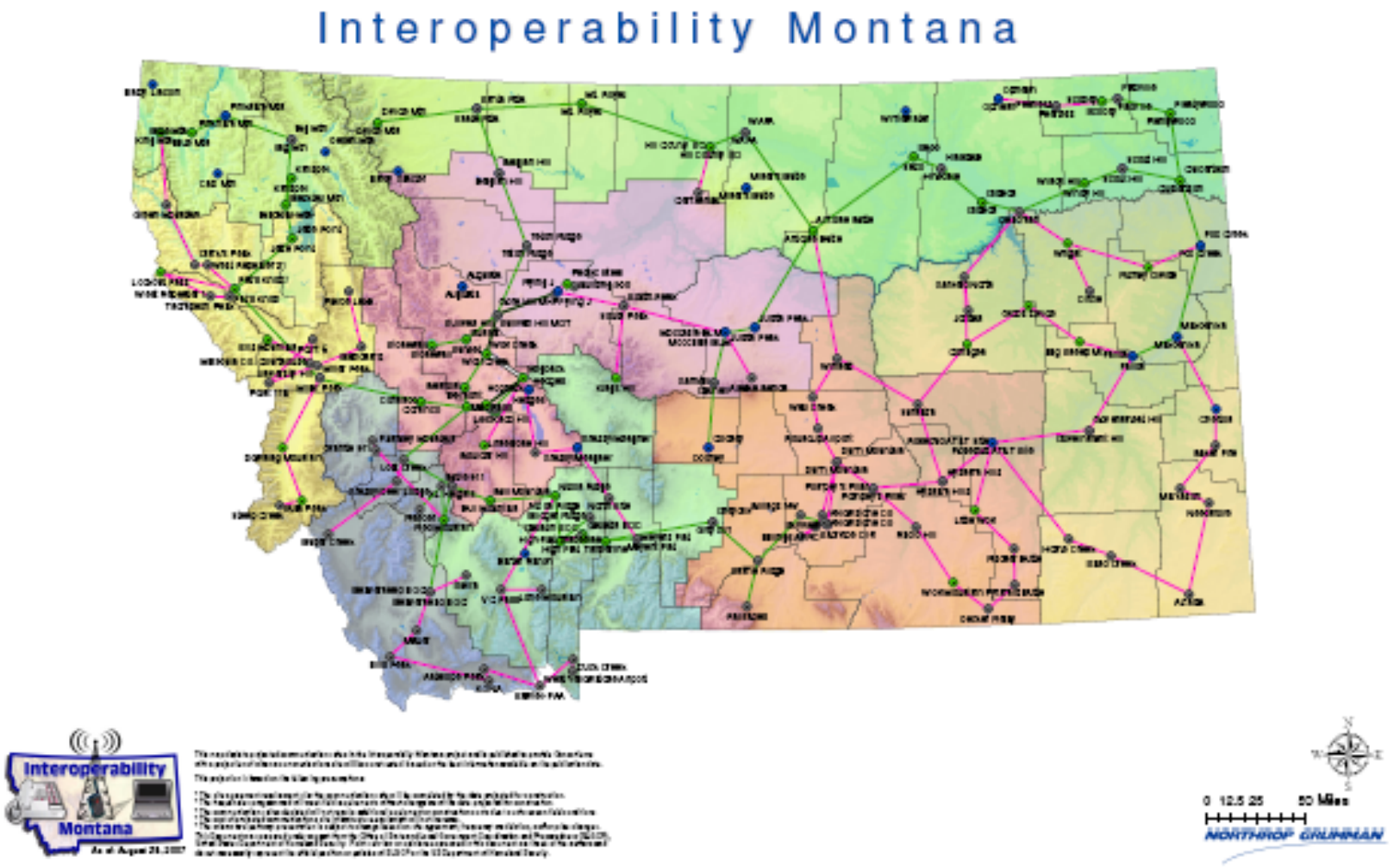
5. Budget

5.1 Training Budget

The training budget is being prepared with the overall budget for the Interoperability Montana Project Directors staffing and operations. Anticipated completion of this budget is January 2008.

Appendix C: Interoperability Montana Network Plan

1.7 Scope and Timeframe of the Plan.



Appendix D: Interoperability Montana Frequency Plan

1.7 Scope and Timeframe of the Plan.

Submitted by the Interoperability Montana Frequency Subcommittee

Purpose

The purpose of this document is to define the approach and management of frequency resources necessary for interoperable communications in the State of Montana. This Frequency Plan will be continuously monitored and updated by the Interoperable Montana (IM) Frequency Subcommittee (IMTC-FS), working under direction of the Interoperability Montana Technical Committee (IMTC) and Interoperability Montana Project Directors (IMPD).

Primary Responsibilities

Frequencies are an important, limited resource in developing wireless voice and data communications for Public Safety. In Montana, frequency issues include the use of VHF, UHF, 700 MHz voice and data communication, and 4.9, 6, 11, 18 and 23 GHz microwave spectrum. This document will define the process and procedures for managing the Interoperable Montana frequency resources. The primary functions of frequency management for the project include:

1. Creating a sustainable strategy for emergency communication growth and development in Montana;
2. Identify existing resources that may be utilized in interoperable communications and the IM Project;
3. Working with partners to solve frequency utilization issues;
4. Identify and obtaining frequency resources;
5. Overseeing the license submittal and management process for Interoperability Montana and partners that request assistance;
6. Monitor and direct IM staff and contractors in frequency licensing and search tasks;
7. Provide coordination with vendors regarding frequency problems during radio deployment and operations;
8. Provide education and training to IM members and partners on frequency matters;
9. Document all frequency ownership, use and transactions;

Under this document, the IM Frequency Subcommittee will be the group with primary responsibility to implement this plan under the guidance of the IMTC. The IMTC-FS is comprised of Interoperability Montana members and partners appointed by the IMTC to focus on frequency issues. The IMTC-FS is led by a committee chair appointed by the Technical Committee Chairperson. Several members provide extensive full or part-time frequency support to the IM Project. The scope of support provided by these individuals is identified as an attachment to this document.

Frequency Plan Modifications

The Frequency Subcommittee will work with the Interoperability Montana Technical Team

(IMTC) for identifying short and long-term frequency needs. These needs are identified through the network plan, site priority list and direction through IMPD decision. When significant changes are needed, the IMTC-FS will develop and propose changes and submit them to the IMTC for approval. If approved, these changes will be forwarded to the IMPD for final approval and incorporation into the Montana Statewide Interoperability Plan.

Frequency Acquisition Process

Once the need for frequency resources is identified through the Montana Statewide Interoperable Communication Plan and specific site priorities established through recommendations by the IMTC and approved by the IMPD, the Frequency Subcommittee will initiate a spectrum identification and acquisition process. Oversight for this process is the responsibility of the Frequency Subcommittee Chairperson, with support from the committee.

The following represents the approach the IMTC-FS will utilize to identify and acquire appropriate VHF and/or 700 MHz frequencies.

1. Frequency needs are communicated from the IMTC/IMPD regarding sites that are scheduled to be developed, pending budget availability, with-in the next 18 months.
2. The IMTC-FS will meet to review the needs and assign responsibilities.
3. IMTC-FS members will contact local agencies and partners to determine if existing spectrum can be utilized.
    a. As necessary, IMTC-FS members will work with vendor staff to determine the suitability of identified spectrum.
4. The IMTC-FS will then initiate frequency searches and submission of Federal Communication Commission (FCC) applications, through members or contractor, for available spectrum needed at identified sites;
    a. Frequency search contracted services may be through Interoperability Montana, State of Montana, or local procurement with funding set aside through the IMPD.
    b. Monitor submission of frequencies through the coordination process.
5. The IMTC-FS will be responsible for obtaining Letters of Concurrence (LOC) from other agencies, through members or contract, for frequency coordination and interference issues.
6. Proper documentation will be provided to contractors and the FCC as appropriate.
7. Selected frequencies will be reviewed with IM members and radio vendors for suitability of use. If the spectrum can't be utilized from a technical perspective, or can't be licensed due to FCC/Industry Canada objection, the IMTC-FS shall direct additional frequency search and licensing activities to be initiated.
8. The IMTC-FS will keep detailed records regarding licensing activities and provide regular reports to the IMTC, IMPD and project manager.

* Long-term frequency needs will be evaluated continuously by the Frequency Subcommittee. Because of the limited amount of spectrum available, the subcommittee may determine it would be in the best interest of the Interoperability Montana Project to identify and license spectrum that may not be utilized for several years. This may include sites near international borders, near other states or in high-use areas. The Frequency Subcommittee will identify these areas and recommend action to the IMTC. Once approved, acquisition of these resource will follow the above process but will be licensed as 'slow growth' for future development.

Additional Frequency Subcommittee Responsibilities

In addition to the aforementioned approach to frequency identification and acquisition, the IMTC-FS will also complete the following tasks in support of the IM Project and Montana Statewide Interoperable Communications Plan.

- Produce and review coverage maps utilizing software provided by the IM project;
- Analyze and review coverage data produced by vendors and contractors;
- Assist vendors in licensing of microwave frequencies;
- As practical, provide intermodulation and interference analysis of proposed spectrum;
- Provide long-term planning for frequency re-use across the state;
- Provide technical liaison with Federal, International and other states on frequency matters;
- Assist the IMPD and the State of Montana in establishing frequency search contracts and coordination contracts.
- Work closely with frequency coordinators in resolving frequency issues and problems;

Frequency Conflict Resolution

Should issues arise from the search, licensing or use of spectrum as part of the Interoperability Montana Project, the IMTC shall direct that these issues be given to the Frequency Subcommittee for review and recommendation for resolution. These recommendations will be immediately communicated to the Interoperability Montana Project Directors Executive Board, through the IMTC Chair.

Appendix E: Montana Mutual Aid Frequencies Handbook

2.5 & 6.1: Montana Mutual Aid Frequencies Handbook

Available on the State of Montana Public Safety Service Bureau website:

http://pssb.mt.gov/docs/2005_mutual_aid_book_2005_web_final.pdf

Appendix F: Interoperability Montana Consortia Needs Assessments

3.1 Interoperability Montana Consortia Needs Assessments

Available on the following Interoperability Montana webpages:

Big Sky 11 Interoperability Project:

http://interop.mt.gov/bigsky11.asp

Central Montana Interoperability Communications Consortium (CMICC)

http://interop.mt.gov/cmicc.asp

Eastern Tier Interoperability Project (ETIP)

http://interop.mt.gov/etic.asp

I-15/90 Corridor Interoperability Communications Project (I-15/90)

http://interop.mt.gov/15-90.asp

Mobile Data Terminal Consortium (MDT)

http://interop.mt.gov/mdtc.asp

Northern Tier Interoperability Project (NTIP)

http://interop.mt.gov/ntip.asp

South Central Montana Interoperability Consortium (SCMIC)

http://interop.mt.gov/scmic.asp

Southwest Interoperability Project (SWIP)

http://interop.mt.gov/swip.asp

Tri-County Interoperability Consortium (TIC)

http://interop.mt.gov/trico.asp

Western Interoperable Communication Consortium (WICC)

http://interop.mt.gov/wicc.asp

Appendix G: Statewide Interoperability Executive Council Members

4.1 Statewide Interoperability Executive Council Members.

Janet Kelly (or designee), Department of Administration, PO Box 200101, Helena MT 59620
Chair, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-3033; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: Director, Department of Administration

Mike McGrath (or designee), PO Box 201401, Helena MT 59620
Vice Chair, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-2026; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: attorney general

Kathy Bessette, Hill County Courthouse, 315 Fourth St, Havre MT 59501
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-265-5481; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: county government representative

Ron Tussing, City of Billings, PO Box 1178, Billings MT 59103
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-657-8296; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: municipal government representative

Cheryl Liedle, Lewis & Clark County, 221 Breckenridge, Helena MT 59601
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-447-8235; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: county law enforcement representative

Lissa Power, 2420 Bridge St, Miles City MT 59301
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-234-6273; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: municipal law enforcement representative

Chuck Winn, PO Box 1230, Bozeman MT 59771
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-582-2350; Home phone:
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: paid fire department representative

Jodi O'Sullivan, 100 16th Ave East, Polson MT 59860

Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-883-6937; Home phone: 406-883-3598
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: volunteer fire department representative

Mary Failing, PO Box 729, Poplar MT 59255
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-786-3323; Home phone: 406-768-8641
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: emergency medical community representative

Chuck Lee, PO Box 575, Baker MT 59313
Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-778-2868; Home phone: 406-778-7121
Appointment date: September 7, 2006; Term ends: September 7, 2008
Qualification: 9-1-1 community representative

Elizabeth Horsman, Assistant US Attorney, 901 Front Street, Suite 1100, Helena MT 59626
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-457-5269; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: federal representative

Mary Sexton (or designee), PO Box 201601, Helena MT 59620
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-2074; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Director, Department of Natural Resources and Conservation

Jim Lynch (or designee), PO Box 201001, Helena MT 59620
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-6201; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Director, Department of Transportation

Mike Ferriter (or designee), PO Box 201301, Helena MT 59620
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-3930; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Director, Department of Corrections

Joan Miles (or designee), PO Box 4210, Helena MT 59620
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-5622; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Director, Department of Public Health and Human Services

Jeff Hagener (or designee), PO Box 200701, Helena MT 59620

Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-2535; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Director, Department of Fish, Wildlife and Parks

William R. Hedstrom (or designee), 400 Lost Creek Drive, Kalispell MT 59901
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: ; Home phone: 406-756-7262
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Chair, Board of Livestock

Randall Mosley (or designee), PO Box 4289, Fort Harrison MT 59636
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-342-3000; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Adjutant General, Department of Military Affairs

Bruce Nelson (or designee), PO Box 200801, Helena MT 59620
Ex-Officio Member, Statewide Interoperability Executive Advisory Council
Work phone: 406-444-3111; Home phone:
Appointment date: September 29, 2006; Term ends: September 7, 2008
Qualification: Governor's office representative

** Tribal Government appointment pending

4.3 Memorandum of Understanding between Local Government Consortia

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is entered into between local government consortia consisting of BIG SKY 11 INTEROPERABILITY CONSORTIUM, CENTRAL MONTANA INTEROPERABILITY COMMUNICATIONS CONSORTIUM, EASTERN TIER INTEROPERABILITY CONSORTIUM, I-15/90 CORRIDOR INTEROPERABILITY COMMUNICATIONS CONSORTIUM, NORTHERN TIER INTEROPERABILITY CONSORTIUM, SOUTH CENTRAL MONTANA INTEROPERABILITY CONSORTIUM, TRI-COUNTY/SOUTHWESTERN INTEROPERABILITY CONSORTIUM, and WESTERN INTEROPERABLE COMMUNICATIONS CONSORTIUM ("Consortia"), the MOBILE DATA TERMINAL CONSORTIUM ("MDT"), and Montana state agencies consisting of MONTANA DEPARTMENT OF JUSTICE, MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION and MONTANA DEPARTMENT OF TRANSPORTATION ("State Agencies") for the purpose of creating Interoperability Montana, an association that will coordinate and establish policies and protocol for a state-wide interoperable communications system capable of providing interoperable wireless voice and data exchange for the entire realm of public safety and emergency management.

Recitals

1. Each Consortium has been formed through an interlocal agreement between its member counties and Indian Nations. The interlocal agreements establish the position of Project Director, who is the executive officer for the Consortium and is authorized to represent it as a member of the board for Interoperability Montana.

2. The Consortia desire to establish an association known as Interoperability Montana, which will have capability to coordinate and oversee a statewide reliable and effective interoperable communications system capable of providing interoperable wireless voice and data exchange for the entire realm of public safety and emergency management, including a response to terrorism, the threat of terrorism and all-hazards.

3. Montana Department of Justice, Montana Department of Natural Resources & Conservation, Montana Department of Transportation and MDT each have an interest in the effective operation of Interoperability Montana and are willing to voluntarily participate. Each is desirous of having a representative on the board for Interoperability Montana.

4. The objective of Interoperability Montana is to establish standards and protocols for the acquisition and operation of public safety radio and wireless communications equipment. This standardization has the goal of creating an interoperability public safety radio communications system in Montana that is a standards-based shared system of systems and is a wide-area system for use by public safety responders. This communications interoperability among public safety emergency responders will ensure their radio communications systems will work seamlessly with other systems or products without any special effort. This interoperability approach to communications systems allows public safety responders in Montana to exchange voice and data communications on demand, in real time, during emergencies and disasters.

5. The parties expect that the standards set by Interoperability Montana will provide advanced channel management for the shared use of frequencies, seamless roaming throughout the respective trunked areas (footprint), and enhanced responder safety through embedded signaling, while at the same time enhancing interoperable communications with existing legacy VHF radios. For lower levels of interoperability, current mutual aid channels will be maintained and available for use.

Agreement

In furtherance of this Memorandum of Understanding, the parties agree to:

I. Organization of Interoperability Montana: The parties agree to form Interoperability Montana, an association of the parties as its members, which will be controlled by a Board of Directors as set forth herein.

A. Membership: The Board consists of the Project Manager from each of the eight Consortia, a designated representative from each of the three State Agencies and one from MDT. Any party may designate in writing an alternate representative who may fulfill the duties of the representative in the absence of the same as defined in the Bylaws Article 3: Membership, Section 3.1.

B. Terms of Representatives and Alternates: An appointed representative or alternate will serve for the term designated the respective consortium as defined in the Interoperability Montana Bylaws, Article 3: Membership, Sections 3.1 and 3.2.

C. Duties and Authority of Board: To participate in Interoperability Montana and work toward achievement of vision, mission and goals, the Board shall:

1. Select from its members a Chair, Vice Chair and Second Vice Chair;

2. Adopt bylaws to govern its internal affairs;

3. Meet at least six (6) times a year or at the call of the Chair or a majority of the Directors using face-to-face meetings, voice conferencing or video conferencing;

4. Conduct meetings and records of meetings in conformance with Title 2, Chapters 3 and 6, MCA;

5. Arrange for Interoperability Montana, a state agency, or a local

jurisdiction to hold, secure, and maintain the records of the Board and to provide for administrative and financial support for the Board as it may need;

6. Enter into an agreement or memorandum of understanding with funding sources including, but not limited to, Department of Homeland Security and the Public Safety Interoperability Communications (PSIC) grants to:

a. Prioritize interoperability requirements and request government funding;

b. Assess regional priority communications interoperability requirements; and

c. Make recommendations on the feasibility of methods to develop or implement Montana-wide communications interoperability and local or regional projects;

7. Establish standards and protocols for the acquisition, maintenance and operation of public safety radio and wireless communications equipment and for seamless roaming throughout the State of Montana and enhanced responder safety through embedded signaling;

8. Assist all Consortia in applying for funding for communications equipment, facilities and technical assistance for interoperability compliance;

9. Provide advanced channel management for shared use of frequencies licensed during the Interoperability Montana project for trunking and non-trunked systems.

10. Prepare a budget for recommended disbursement of funds authorized through private and public grants and legislative appropriations to members of the Consortia, State Agencies or MDT to create, equip, operate and

maintain the state-wide interoperability public safety radio communications system; and

11. Do all things necessary and within the legal authority of the Board to create, equip, operate and maintain a state-wide interoperability communications system.

12. Hire or contract an executive officer and staff to support Interoperability Montana's vision, mission and goals.

II. Manner of Financing Governing Board:

A. Expenses of Board: Expenses of the board may be authorized for payment through any mechanism that does not commit the levying of taxes, indebt any of the consortia, State Agencies or MDT.

B. Establishing and Maintaining a Budget: The board has no authority to levy taxes or indebt the consortia, State Agencies or MDT in this MOU. However, the board can establish a budget for Interoperability Montana as a result of funding authorized as a sub-grantee from awarded grants, the Legislature of the State of Montana or user fees adopted by the governing body of local jurisdictions of the consortia, State Agencies and/or MDT.

C. Prohibition on Indebtedness: The Board has no authority to establish a budget that is binding upon Consortia, State Agencies or MDT, to levy taxes, or otherwise indebt the Consortia, State Agencies or MDT.

III. Duration: This Agreement is effective upon execution and continues until such time as the parties hereto terminate this Agreement by mutual agreement. If any party desires to withdraw from this Agreement and withdraw its representative from the Board of Directors, it may do so by giving one hundred eighty (180) days advance written notice to the Board of

Directors and the other parties. Upon withdrawal of a party, this Agreement remains in effect as to the remaining parties.

IN WITNESS WHEREOF, the parties hereto have executed this MOU as of the last signature date written below:

BIG SKY 11 INTEROPERABILITY CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

CENTRAL MONTANA INTEROPERABILITY COMMUNICATIONS CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

EASTERN TIER INTEROPERABILITY CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

I-15/90 CORRIDOR INTEROPERABILITY COMMUNICATIONS CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

NORTHERN TIER INTEROPERABILITY CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

SOUTH CENTRAL MONTANA INTEROPERABILITY CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

TRI-COUNTY/SOUTHWESTERN INTEROPERABILITY CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

WESTERN INTEROPERABLE COMMUNICATIONS CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

MOBILE DATA TERMINAL CONSORTIUM

By_____
Project Director
Print Name_____
Date_____

MONTANA DEPARTMENT OF JUSTICE

By_____
Attorney General
Print Name_____
Date_____

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION

By_____
Director
Print Name_____
Date_____

MONTANA DEPARTMENT OF TRANSPORTATION

By_____
Director
Print Name_____
Date_____

2007 INTERLOCAL AGREEMENT FOR

_____INTEROPERABLE COMMUNICATIONS

CONSORTIUM

WHEREAS, Title 7, Chapter 11, MCA, permits local government units to make the most efficient use of their powers by enabling them to cooperate with other local government units on a basis of mutual advantage, and thereby to provide services and facilities in a manner, and pursuant to forms of governmental organization, that will accord best with geographic, economic, population, and other factors influencing the needs and development of local communities; and

WHEREAS, the above-referenced statute provides that an interlocal agreement may be adopted by authorization and approval by the governing bodies of the parties to said agreement; and

WHEREAS, _____, _____, _____, and _____are Montana counties that are political subdivisions of the State of Montana, [and _____ and _____are Indian Tribes governing federally recognized Indian reservations;] and

WHEREAS, the Counties [and Tribes] recognize the importance of a reliable and effective interoperable communications system capable of providing interoperable wireless voice and data exchange for the entire spectrum of public safety and emergency management; and

WHEREAS, the Montana local, [tribal] and sate public safety agencies are cooperating in building a compliant radio communications system that allows radio users to effectively communicate in the interest of public safety on a statewide basis; and

WHEREAS, the Counties [and Tribes] desire to form a interlocal interoperability communications consortium whereby they can jointly cooperate and overcome the local barriers to arrive at a reliable and effective interoperable communications system within their jurisdictions; and

WHEREAS, through this consortium the Counties and Tribes can become a partner with other

county [and tribal] consortia, and Montana and United States Government agencies, in the Interoperability Montana.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the receipt and sufficiency whereof being hereby acknowledged, the Counties [and Tribes] hereto agree as follows:

1. PURPOSE OF AGREEMENT: This agreement is made and entered into by the Counties [and Tribes] to establish the _____ Interoperability Consortium, hereinafter referred to as "Consortium." The Consortium will communicate and plan with response entities and government officials for overall interoperable communications within the counties [and reservations]. The purpose of the Consortium, and through partnering with other consortia throughout the State, is:

A. To achieve communications interoperability, which is the ability of public safety emergency responders to work seamlessly with other systems or products without any special effort.

B. For wireless communications interoperability to achieve the ability of public safety officials to share information via voice and data signals on demand, in real time, and when needed.

C. Work for a public safety radio communications system in Montana with technology that will be a standards-based, shared system of systems and will be a wide-area system for use by public safety responders.

D. Through the deployment of a migration plan that identifies the steps and process for each participating entity, the system will combine P25 trunked and P25 digital/analog conventional technologies to provide interoperable communications among P25 narrow band, digital trunked, and existing conventional users.

E. Procure and use compatible equipment that will seamlessly integrate with infrastructure equipment deployed in the Southwest Interoperability Project (Concept Demonstration Project #1) and Northern Tier Interoperability Project (Concept Demonstration Project #2). The equipment will operate narrow band in the VHF frequency range and will use a protected, high-capacity, digital microwave

backbone for voice and data interconnect traffic.

2. ORGANIZATION OF CONSORTIUM BOARD: The Consortium agrees to form a Governing Board and establish a position of Project Director, whose duties and responsibilities are set forth herein.

A. Membership: The Governing Board consists of one designated representative appointed by each County [and Tribe] whose appointment will be made in writing. Each County [and Tribe] may designate in writing an alternate representative who may fulfill the duties of the representative in the absence of the same. A County [or Tribe] may replace the representative or alternate at any time person, but the substitution is not effective until the Governing Body receives written notice of the substitution. The Governing Body shall keep the writing, making appointments part of its records.

B. Terms of Representatives and Alternates: An appointed representative or alternate will serve for the duration of this Interlocal Agreement unless earlier replaced by the Governing Body appointing the same.

C. Duties and Authority of Board: To participate in Interoperability Montana and work toward achievement of its goals and objectives, the Governing Board shall:

1. Select a Project Director;
2. Form policy consistence with the purposes of the Agreement;
3. Meet at least quarterly and at the call of any of its members;
4. Conduct meetings and records of meetings in conformance with Title 2, Chapters 3 and 6, MCA;
5. Designate members to hold, secure, and maintain the records of the Consortium and Governing Board and report and pay retirement system contributions;
6. Enter into agreements for the formation of Interoperability Montana, an association of consortia and government agencies, which will enter into an agreement or memorandum of understanding with the Montana Department of Military Affairs, Disaster and Emergency Services:

a. To prioritize interoperability requirements and request government funding;

b. Assess regional priority communications interoperability requirements; and

c. Make recommendations on feasibility of methods to develop or implement Montana-wide communications interoperability and local or regional projects; and

7. Apply for and receive funding for the Consortium.

D. <u>Duties and Authority of Project Director</u>: The duties, responsibilities, and authority of the Project Director are:

1. Serve as Chief Executive Officer of the Consortium;

2. Be accountable to the Governing Board, be responsible for overall supervision of the activities of the Consortium and day-to-day operations of Consortium, and be the primary point of contact on all Consortium matters;

3. Be a non-voting member of the Governing Board, unless the Project Director is also a representative from one of the members, then the Project Director has the authority of a representative;

4. Be responsible for the preparation of minutes of the meetings of the Governing Board and submitting copies to the Montana Department of Military Affairs, Disaster and Emergency Services Division;

5. Provide coordination between the Consortium, State, [Tribal] and Federal agencies, private firms, and contractors engaged in the funding, design, management, and deployment of the project;

6. Serve as a member of the Project Directors Board of Interoperability Montana;

7. Execute documents and contracts previously approved by the Governing Board; and

8. Supervise activities of the Consortium and perform such other duties as assigned by the Governing Board.

E. MANNER OF FINANCING GOVERNING BOARD:

1. **Expenses of Governing Board:** Joint expenses, if any, will be divided equally between each of the Counties [and Tribes].

2. **Establishing and Maintaining a Budget:** The Governing Board has no authority to establish a budget, levy taxes, or indebt the Consortium or any of its members.

F. BYLAWS: The Governing Board will adopt bylaws to govern its internal affairs.

G. DURATION: This agreement is effective upon execution and continues until such time as the parties hereto terminate this agreement by the mutual agreement. If any member desires to withdraw from the Consortium, it may do so by giving one hundred eighty (180) days advance written notice to the Governing Board and the other members. Upon withdrawal of a member, this agreement remains in effect as to the remaining members.

DATED this _____ day of _____, 2007.

_____COUNTY

By_____
(Print Name) _____
Board Chair

ATTEST:

By_____
(Print Name)_____
Clerk and Recorder

_____COUNTY
By_____
(Print Name) _____
Board Chair

ATTEST:

By_____
(Print Name)_____
Clerk and Recorder

4.6 Memorandum of Understanding between the Department of the Interior (DOI) and the State of Montana

Available on the Interoperability Montana website:
http://interop.mt.gov/docs/NTIC_MOU.doc

4.6 Memorandum of Understanding between the Department of Military Affairs and the State of Montana

Available on the Interoperability Montana website:
http://interop.mt.gov/docs/MOU_DOI_Montana_October_2006.pdf

4.3 Interoperability Montana Project Directors By-Laws

BYLAWS
INTEROPERABILITY MONTANA
BOARD OF PROJECT DIRECTORS
May 1, 2007

ARTICLE 1: Objectives:

1.1. The objective of the Interoperability Montana Project Directors (IMPD), as set forth in the establishing Memorandum of Agreement (MOA), dated November 14, 2005, is to promote and develop the Interoperability Montana (IM) Project, a communications voice and data system for Federal, tribal, state, local, and private sector public safety responders.

1.2. The Interoperability Montana system will be based on the Statewide Interoperability Executive Council (SIEC) approved policy and technical requirements.

1.3. The IMPD will operate as a Board of Directors and develop strategies and priorities for implementation of the IM Project.

ARTICLE 2: Organization:

2.1. The IMPD is authorized by implementing the Memorandum of Agreement (MOA) of November 14th, 2005, as recognized by SIEC.

2.2. The IMPD shall conduct business as set forth in these bylaws.

2.3. The IMPD shall develop strategies and implementation priorities with the Consortia to achieve Interoperability Montana.

ARTICLE 3: Membership:

3.1. The IMPD will consist of Project Directors from Big Sky 11 Interoperability Consortium, Central Montana Interoperability Communications Consortium, Eastern Tier Interoperability Consortium, I-15/90 Interoperability Consortium, Mobile Data Terminal Consortium, Northern Tier Interoperability Consortium, South Central Montana Interoperability Consortium, TRI-County/Southwestern Interoperability Consortium, and Western Interoperable Communications Consortium as well as three representatives from the following state agencies: the Montana Department of Natural Resources and Conservation, the Montana Highway Patrol, and the Montana Department of Transportation. Each Project Director will be allowed to select a proxy member from their consortium to represent them if they are unable to attend.

3.2. Board member terms will be determined by their individual consortia.

3.3. All jurisdictions in the State of Montana belong to consortia. Any consortium who disbands will be recognized as eliminating a Project Director to the IMPD, and jurisdictions will have the option to either join a consortium or be assigned to one. All jurisdictions will be members of a consortium with whom it has a working relationship and mutual aid agreements.

3.4. Each IM Project Director is a full and equal member of the IMPD board. Each Project Director shall have one vote in the proceedings of the board. A quorum shall consist of majority plus one of the voting members.

3.5. Voting by electronic, telephonic means, or by proxy member, selected by the Consortium Project Director, will be permitted as required.

3.6. Members of the IMPD are the only meeting participants that will make motions and vote on motioned items. Motioned items will be approved or disapproved by majority vote of the members.

3.7. Non-voting meeting members are any meeting participant who, upon recognition of the chair, may be invited to participate at board meetings.

ARTICLE 4: Meetings and Procedures:

4.1. The IMPD shall meet at a minimum quarterly, at the call of the Chair. Meetings and records of meetings shall conform to Title 2, MCA and all existing State and Federal Codes and regulations. Notice of the time and place of the meeting shall be given to each member personally, by mail or electronically at least two days before a meeting, posted on the web site, and determined prior to the completion of the previous meeting.

4.2. The IMPD will be assisted by the Public Safety Services Bureau in the keeping and posting of records of meetings. Committees or sub-committees designated by the Board will present their meeting records to the board for inclusion in the board records. Records shall consist of names of those in attendance, a summary of the business conducted, and motions made and votes taken by the board. Recordings of all meetings are available on CD and will be made available upon request in the event there are misunderstandings about discussion.

4.3. The IMPD shall elect the Chair, Vice-Chair and 2nd Vice-Chair to serve for staggered three-year terms on the board. The 2nd Vice Chair shall come up for election in January, 2008. The Vice Chair shall come up for election in January, 2009 and the Chair in January, 2010. Elections shall occur in the same cycle thereafter. The Vice-Chair and 2nd Vice-Chair shall be elected to serve in the absence of the Chair. The Chair, Vice-Chair, 2nd Vice- Chair and immediate Past Chair will serve as the Executive Board. Any action taken by the Executive Board shall be reported to the full Board at the next regularly scheduled meeting.

4.4. The IMPD or the Chair, may invite any additional, non-voting, individuals to meet with and assist the board in a particular area for a particular time.

4.5. The IMPD may elect to meet in executive session by the majority vote of the members during any meeting period due to the sensitive nature of the material. Upon such notice, the meeting area will be cleared and the board will conduct the Executive Session and then return to the ordinary session of the meeting.

ARTICLE 5: Organization and Administration:

5.1. The IMPD has the final authority and responsibility for the decisions of the Board. It has the primary responsibility for development and execution of the strategy to implement Interoperability Montana as defined by SIEC.

5.2. The IMPD is also responsible for overall supervision and business affairs conducted by

the board.

5.3. The IMPD is expressly authorized to conduct operations in the furtherance of Interoperability Montana, establish committees and sub-committees, and make recommendations for Homeland Security funding, as voted by the Interoperability Montana Project Directors in furthering Interoperability Montana. The meetings of all appointed committees will be conducted in accordance with Article 4.1.

5.3.1. Ad Hoc Committees: The IMPD has the authority to appoint ad hoc committees for various projects necessary to achieve the responsibility of organization and administration. Ad Hoc committees are sunset committees and upon completion of their goals, set by the IMPD, through the chair, will disband unless recognized by the IMPD to be a Standing Committee of the IM.

5.3.2. Standing Committees: These committees are appointed by the IMPD through the chair and are committees that will continue to be a resource on an ongoing basis to IM. Committee members can be subject matter experts, members of consortia, employees of local, state and federal agencies. Members do not have to be Project Directors.

5.3.3 Governance of all IM appointed committees. All committees appointed by the IMPD shall have a chair and vice chair. A quorum is a simple majority (half plus one) of the appointed committee and attendance at meetings can include personal attendance, voice conferencing and voice video conferencing to conduct the business relative to the goals set by the IMPD. Committee members are not allowed to designated proxies. Appointments to committees will be reviewed annually by the Project Directors and reappointed through the chair, based on the advice of the Project Directors. The chair of all IMPD committees shall be appointed by the IMPD Chair.

5.4. The Chair of the IMPD will act as the primary point of contact for the Board and will, under the general direction of the Board, exercise day-to-day coordination, supervision, and administration of the operation of the Board.

5.5. The Chair shall be the primary interface with contractors engaged in services for the IMPD and will designate the nature and depth of status and progress reports from the contractor to the Board.

5.6 These bylaws may be amended or repealed and new bylaws adopted by a majority of the Interoperability Montana Project Directors at any regular or special board meeting.

ARTICLE 6: Amendment to the Bylaws:

6.1 Proposed amendments or repeal action of the bylaws shall be preceded by a thirty- (30) day notice to each voting member.

6.2 These bylaws may be amended or repealed and new bylaws adopted by a majority of the Interoperability Montana Project Directors at any regular or special board meeting.

ARTICLE 7: Duration:

7.1. These bylaws shall remain in effect until modified or rescinded by the IMPD.

Appendix J: Interoperability Montana Project Directors Committee Memberships

4.4 IMPD Members, Committee Members

Board of Project Directors

Sheriff Cheryl Liedle	Chair, Interoperability Montana Project Directors (IMPD)
Ed Auker	Big Sky 11 Consortium Project Director
Kevin Bruski	Montana Department of Transportation
Sheriff Jim Cashell	Mobile Data Transmission (MDT) Project Director
Sheriff Wayne Dusterhoff	Northern Tier Interoperability Consortium (NTIC)
George Gupton	Western Interoperable Communications Consortium (WICC)
Sheriff Scott Howard	Tri-County Consortium (TIC) Project Director
Cindy Kilby	Central MT Interoperable Communications Consortium (CMICC) Project Director
Dave McPherson	I-15/90 Consortium (I-15/90) Project Director
Chief Alan Michaels	First Vice-Chair, IMPD; Eastern Tier Consortium Project Director
Ted Mead	Bureau Chief, Fire & Aviation Management, Montana Dept. of Natural Resources and Conservation
Jason Shrauger	South Central Montana Interoperability Consortium (SCMIC) Project Director
Roger Smith	Montana Highway Patrol

Support Members:

Mark Adams	*Program Manager, Northrop Grumman*
Chris Christensen/	*Public Safety Services Bureau (PSSB)*
Scott Bradford/	*PSSB*
Pete Mohan/	*PSSB*
E. Wing Spooner	*PSSB*
Dave Clouse	*Tri-County Consortium Technical Committee/Northrop-Grumman*
Bill Fleiner	*Montana Department of Corrections*
Sheri Lanz/	*Montana Disaster and Emergency Services*
Dan Sullivan	*Montana Disaster and Emergency Services*

Executive Committee

Sheriff Cheryl Liedle	Chair, Interoperability Montana Project Directors
Chief Al Michaels	First Vice-Chair, IMPD; Eastern Tier Consortium Project Director
Vacant	Second Vice-Chair, IMPD

Governance Committee

Bill Fleiner	Chair, Governance Committee/Montana Department of Corrections
Cindy Mullaney	Vice Chair, Governance Committee/ Central MT Interoperable Communications Consortium (CMICC) Project Director
Tim Burton	Helena City Manager
Kevin Bruski	Montana Department of Transportation
Chris Christensen/	Public Safety Services Bureau (PSSB)
Sheena Wilson	Deputy Chief of Staff, Governor's Office

Sheriff Cheryl Liedle	Chair, Interoperability Montana Project Directors
Chief Alan Michaels	Eastern Tier Consortium Project Director
Jason Shrauger	South Central Montana Interoperability Consortium (SCMIC)
Roger Smith	Montana Highway Patrol

Support Members:

Mark Adams	*Program Manager, Northrop Grumman*
Jane Jelinski	*Montana State University (MSU) Local Government Study Group*

Statement of Work Committee

Chris Christensen	Public Safety Services Bureau (PSSB)
Sheriff Cheryl Liedle	Chair, Interoperability Montana Project Directors
Dave Clouse	Tri-County Consortium Technical Committee/Northrop-Grumman
Sheriff Scott Howard	Tri-County Consortium (TIC) Project Director

Appendix K: Interoperability Montana Governance Committee Members

4.4 Interoperability Montana Governance Committee Members

William Fleiner, CHAIR
DOC Quality Control/IMGC Chair
Business: 406-444-4761
Mobile: 406-980-2053
Email wfleiner@mt.gov

Mark E. Adams
Northrop Grumman Program Manager
Business: 406-443-8694
Mobile: 406-461-6063
Email: mark.e.adams@ngc.com

Kevin Bruski
Chief Communications Bureau Chief, DOT
Business: 406-444-6305
Mobile: 406-431-6305
Email: kbruski@mt.gov

Tim Burton
Helena City Manager
Business: 406-447-8401
Email: tburton@ci.helena.mt.us

Chris Christensen
PSSB
Business: 406-444-7370
Mobile: 406-202-3632
Email: cchristensen@mt.gov

Sheriff Cheryl Liedle
Montana Peace Officer's Association
Business: 406-447-8235
Mobile: 406-447-8286
Email: cliedle@co.lewis-clark.mt.us

Alan Michaels, Police Chief
Eastern Tier Interoperability Consortium
Business: 406-377-2364
Email: gpdadm@midrivers.com

Cindy Mullaney
CMICC Project Director
Business: 406-271-4040
Email: pondes@3rivers.net

Roger Smith
Communications Technician, MHP
Business: 406-444-4274
Email: rsmith@mt.gov

Sheena Wilson
Governor's Office
Business: 444-5503
Email: swilson@mt.gov

Appendix L: Interoperability Montana Technical Committee (IMTC) Memberships

4.4 Interoperability Montana Technical Committee Members

Interoperability Montana Technical Committee (IMTC) Voting Members

Don Brostrom	Northern Tier Consortium Technical Committee /Hill County Undersheriff
Kevin Bruski	Montana Department of Transportation
Sean Gallagher/	Montana Department of Natural Resources and Conservation (DNRC)
Todd Klemann	DNRC Alternate
Ray Hetherington	Big Sky 11 Technical Committee/Wheatland Golden Valley County 9-1-1 Center
Mary Hill/	Central MT Interoperable Communications Consortium (CMICC) Technical Committee; DES Coordinator, Judith Basin County
Donita (Sue) Demontinay	Representative, Chippewa Cree Tribe (CMICC Alternate)
Dorothy Gremaux	CMICC Alternate
Jason Jarrett/	South Central Montana Interoperability Communications Consortium (SCMICC) Technical Committee/Deputy, Gallatin County
Jason Shrauger	SCMICC Alternate
Dave McGinnis	Western Interoperable Communications Consortium (WICC) Technical Committee/Missoula County Sheriff's Office
Bob McWilliams	I-15/90 Consortium Technical Committee/DES Coordinator, Beaverhead County
Butch Renders	Eastern Tier Interoperability Consortium/DES Coordinator, Richland County
Jack Spillman	Tri-County Consortium Technical Committee, Lewis and Clark County Sheriff's Office Radio System Administrator
Roger Smith/	Montana Highway Patrol (MHP)
Dale Osborne/	MHP Alternate
Charlie Larson	MHP Alternate

Support Members:

Mark Adams/	*Program Manager, Northrop Grumman*
Dave Clouse	*Northrop Grumman*
Scott Bradford/	*Public Safety Services Bureau (PSSB)*
Pete Mohan/	*PSSB Alternate*
E. Wing Spooner	*PSSB Alternate*
Bruce Brown	*Federal Bureau of Investigations (FBI)*
Mark Canton	*Motorola*
Lt. Col. Matt Lynde/	*Montana National Guard (MNG)*
Major Jeff Fisher	*MNG Alternate*
Alan Miller	*Bureau of Land Management (BLM)*
Eric Proctor	*U.S. Forest Service*
Bill Fleiner/	*Department of Corrections*

Dave Shaw	*Department of Corrections Alternate*

Encryption Sub-Committee to the IMTC

Don Brostrom	Northern Tier Consortium/Hill County Undersheriff
Bruce Brown	FBI
Dale Osborne	Montana Highway Patrol
Jack Spillman	Tri-County Consortium, L & C County Sheriff's Office Radio System Administrator
E. Wing Spooner	Public Safety Services Bureau (PSSB)

Frequency Sub-Committee to the IMTC

Kevin Bruski	Montana Department of Transportation
Scott Bradford	Public Safety Services Bureau (PSSB)
Ray Hetherington	Big Sky 11 Technical Committee/Wheatland Golden Valley County 9-1-1 Center
Roger Smith	Montana Highway Patrol
Jack Spillman	Tri-County Consortium, L & C County Sheriff's Office Radio System Administrator

Radio Programming Sub-Committee to the IMTC

Don Brostrom	Northern Tier Consortium/Hill County Undersheriff
Dale Osborne	Montana Highway Patrol
Roger Smith	Montana Highway Patrol
Jack Spillman	Tri-County Consortium, L & C County Sheriff's Office Radio System Administrator

Appendix M: Interoperability Montana Committee and Consortia Meeting Schedules

Section 4.5: IM Consortia and IM Committee Meeting Schedules

Available on the following Interoperability Montana webpages:

Interoperability Montana Project Directors:

http://interop.mt.gov/pd_meetings.asp

Interoperability Montana Governance Committee:

http://interop.mt.gov/gc_meetings.asp

Interoperability Montana Technical Committee:

http://interop.mt.gov/imtc_meetings.asp

Big Sky 11 Interoperability Project:

http://interop.mt.gov/bigsky11_meetings.asp

Central Montana Interoperability Communications Consortium (CMICC)

http://interop.mt.gov/cmicc_meetings.asp

Eastern Tier Interoperability Project (ETIP)

http://interop.mt.gov/etic_meetings.asp

I-15/90 Corridor Interoperability Communications Project (I-15/90)

http://interop.mt.gov/15-90_Meetings.asp

Mobile Data Terminal Consortium (MDT)

http://interop.mt.gov/mdtc.asp

Northern Tier Interoperability Project (NTIP)

http://interop.mt.gov/ntip_meetings.asp

South Central Montana Interoperability Consortium (SCMIC)

http://interop.mt.gov/scmic_meetings.asp

Southwest Interoperability Project (SWIP)

http://interop.mt.gov/swip.asp

Tri-County Interoperability Consortium (TIC)

http://interop.mt.gov/tic_meetings.asp

Western Interoperable Communication Consortium (WICC)

http://interop.mt.gov/wicc_meetings.asp

Appendix N: Additional Resources

10.3: IM Project Fact Sheet, Heard Across Montana (HAM) Newsletter, Montana Policy Review

Interoperability Montana Project Fact Sheet: Available on the Interoperability Montana website:

http://interop.mt.gov/docs/MOTO80241_B.pdf

Heard Across Montana (HAM) Newsletter: Available on the Interoperability Montana website:

http://pssb.mt.gov/ham.asp

Montana Policy Review (Vol 14, No 1 Summer 2007): Available on the Interoperability Montana website:

http://interop.mt.gov/montana_policy_review.asp